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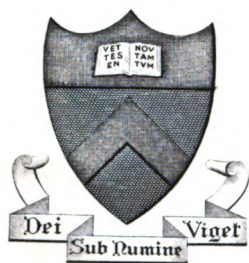
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ARABIA II

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A HANDBOOK OF ARABIA

VOLUME II R O U T E S

*Prepared on behalf of the
Admiralty and the War Office*

ADMIRALTY WAR STAFF
INTELLIGENCE DIVISION

(C.B. 405)

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NOTE

THIS volume of the *Handbook of Arabia* is devoted mainly to detailed routes, preceded by two chapters on methods of transport and lines of communication ; the facts with regard to the available supply of camels among the Bedouin tribes, incorporated in the first chapter, are from native information obtained since the outbreak of the war. The routes are arranged on a geographical basis, which follows, with some modifications, the arrangement of chapters in Vol. I. The Northern Routes are described first, as they form the inland lines of approach to Central Arabia from the Syrian Hamād and the Mesopotamian plain. The Eastern Routes to the centre, from the Shatt el-'Arab and the Gulf Coast, naturally succeed those from the Euphrates Valley. The two trunk-routes through Central Arabia are next described, and then follow the Western Routes, beginning with the Hejaz Railway and with tracks into Central Arabia from intermediate stations on the line, from towns on the Red Sea littoral, and from Medina and Mecca. From this point the arrangement follows that of Chapters IV-VIII in Vol. I, the last route in the volume linking up the series of South-Western, Southern and South-Eastern Routes with the Eastern Routes already described.

The authorities from which the routes have been compiled, together with notes on direction and distance, are given at the head of each ; descriptions of the *character* of a route and its *supplies* will be found in the corresponding section of the chapter on communications, to which a page-reference is added at the head of the route. The references which follow the names of towns in the body of a route refer to descriptions in Vol. I ; all other references are to the pages of the second volume. Wherever possible a route has been divided into stages of a day's march, the length of which is of course determined by local conditions and the occurrence of water ; in little-known country, or where water is carried and

camping-places are optional, the stages are sometimes longer. The mileage is registered in two columns, of which the inner refers to the stage, the outer to the total distance traversed ; inset figures give the distance in miles from point to point. Measurements in kilometres have been retained only for the Hejaz Railway, which is constructed on a kilometric basis ; and in routes over difficult country the time taken is sometimes added within parentheses. An attempt has been made throughout to decide between conflicting authorities, but where that is impossible the information of each is given. Where native information only is available, as in the group of Asir Routes, distances must be regarded as not more than approximately correct. Some idea of the varieties of country traversed by the routes may be gathered from the plates at the end of each volume.

Chapters have been incorporated on Meteorological Observations, Hygiene and Disease, and Vocabularies. The most important languages for Arabia are naturally Arabic and, in a far less degree, Turkish ; for use in some of the towns and islands of the Persian Gulf, Persian vocabularies and phrases have also been included.

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NOTE ON THE SPELLING OF PROPER NAMES

As a guide to the pronunciation of Arab proper names a long accent has been employed (ā, ī, ō or ū), to indicate the length of the vowel above which it is placed; the Arabic consonant 'Ain has been rendered by the symbol ' ; and the *Hamzah* (the cutting off of the breath which can precede or follow a vowel) is represented by ' , except at the beginning or end of a word and in some common components of place-names, such as Bir, 'well', and Ras, 'headland'. The aim has been to assist the reader in a correct pronunciation without overburdening the text with a large number of diacritical marks. The *system of transliteration* adopted is explained in greater detail in the Note on pp. 467 ff.

Conventional spellings of names, when sanctioned by long tradition, have been retained, e. g. Bedouins, Mecca, Mocha, &c. ; and in some well-known names accents have been omitted, as in Asir, Hejaz, and Oman. For a list of *Conventional Spellings*, with their correct equivalents, see p. 473.

CHAPTER I

METHODS OF TRANSPORT

THE CAMEL, THE HORSE, AND THE ASS

THE general agent of communication in Arabia is the camel. Wheeled vehicles ply only in and near Aden and (rarely) in and near San'ā (as far as Bo'ān on the Hodeidah road, and Raudhah on the Khamir road); they are not used on the Jiddah-Mecca road, but it is said to be possible to drive from Mecca to Tā'if by making a long détour northward via Seil. But for the ingrained conservatism of the Arab, wheeled traffic might be extended in various directions over hard desert; a motor-car containing Turkish officers and one of the Rashīd family recently (1916) went from Hā'il to Mu'adhdham in a single day. Doughty notes that carts might follow the Hajj route between Damascus and Medā'in Sālih, since the Turks annually send a field-piece on its carriage there and back with the relief expedition which meets the returning pilgrims, and he thinks that even the 'Aqabah would not be too difficult. For women, sick persons, or those who would travel at ease, litters were borne by camels and mules on the above route in 1876.

The riding-camel (*dhelūl*, plur. *dhulul*), is almost always a female; the burden-camel is usually male. The life of camels may extend to forty or fifty years; they are trained to carry loads from the third year, but are not reckoned fit for regular work till the sixth (see p. 19); and though in regions where they are well treated, as in Nejd, they may work when about twenty-five years old, they are commonly worn out before reaching half that age. The fact that the camel is incapable of attachment, and indifferent to the rider is emphasized by Palgrave, who describes it as 'from first to last an undomesticated and savage animal, rendered serviceable by stupidity alone, . . . never tame, though not wide awake enough to be exactly wild'. But those who travel in deserts, where one's life depends on the camel, usually do not so condemn it. Doughty, for example, speaks more kindly of the camel than Palgrave, and, while fully alive to its shortcomings, reflects Arab sentiment in the phrase, 'Yet is the camel more beautiful in our

eyes than the gazelles, because man sees in this creature his whole welfare, in the *khála*.'

The great virtue of the species is patience. Though resenting the process of being laden, when once started camels will go on until they fall so utterly exhausted that it may be necessary to destroy them : it is cheaper to buy three new camels than to bring one exhausted beast round (Nolde). If well treated, they do not bite or kick. The driver makes the laden beast kneel by uttering a guttural cry like *ikh-kh-kh* ! ; if that fails, he strikes him with hand or driving-stick upon the neck ; if there is still resistance, he draws him down by the beard. If a couched camel is unruly, the Arab controls him by laying hold of the cartilage of his nose, whereupon he is at once amenable. The trot is the dromedary's easiest pace ; the walk, if long continued, has been described as back-breaking for the inexperienced. 'Camels at a descent are wooden riding ; the lumpish brutes . . . let themselves plumb down with stiff joints to every lower step' (Doughty). After rain, upon loamy or slippery soil, they are useless, slipping so badly that a halt must be made until the ground is dry.

They differ greatly in size and strength in various parts of Arabia. In the Mecca country they are feeble ; the largest and most powerful are those bred by the Anazah in the north ; the fastest come from Central Arabia and Oman, though the breed of the country behind Aden is locally renowned for speed. The pure-blooded camel does not flourish at too great a distance from his native region. The Turks have used thorough-bred Arabian dromedaries for carrying dispatches in Mesopotamia and the Syrian desert ; but it is said that N. of the 30th parallel they soon deteriorate, and cannot maintain their former speed (Nolde). Central Arabian camels are generally grey or white ; in the north a dun colour is preferred, while black is supposed to indicate an uncertain temper.

The Bedouin camel picks up its food where it can, living on the roughest grazing, browsing on thorny acacia and tamarisk, and finding no small part of its sustenance in the *rimth*, a saline bush 'which is to camels as flesh-meat to man'. Where special effort is required, or grazing is insufficient, food is carried. The great Hajj camels do not browse, but are fed, as in Syria, on balls of boiled pulse, with addition of knot-grass forage (*thurm*). The 'Uqeil (Ageyl) usually carry a mixture of millet and coarse flour, called *alej*, which they make up every night into balls the size of a man's fist, giving five or six to each of their camels. In S. Nejd the Arabs roll dates into balls, stones and all, and these are reputed to be beneficial as medicine (Leachman). When the spring pasture begins, the camels increase

in vigour and put on flesh. At this season they will go more than two months without drinking, the moisture in the succulent fresh plants sufficing for their needs. In winter they can pass a full week waterless without discomfort; in summer they must usually drink at intervals of three days, though a good dromedary, carrying only a rider, will subsist without water for two days longer.

A well-bred dromedary will perform great feats of endurance. Leachman states that mail-carriers between Damascus and Baghdad have ridden 60 miles a day for 9 days in succession. Nolde tells of a dromedary given him by Ibn Rashid which accomplished 62½ miles between 10 p.m. and 5 a.m.; it had already traversed nearly 30 miles during the previous day, and repeated this distance on the day following. He adds that Ibn Rashid was accustomed to send messengers from Hā'il to Basra (about 375 miles) in six days, and from Hā'il to Medina (about 250 miles) in three and a half days. Burekhardt relates that a hundred and fifteen miles were once covered in eleven hours; with relays, Central Arabian camels carried a present sent by Nolde to the Emir of Nejd over the 400 odd miles from Basra to Riyādh in three days, an average of 135 miles a day. Performances such as these are of course exceptional. The usual speed of a caravan is not more than two and a half miles an hour for a day of about nine hours, so that twenty-five miles is a respectable day's journey. Where the going is good, and heavy loads are not carried, this rate may be exceeded by a quarter or a half mile an hour. Shakespear did three miles an hour over a great part of Route 9, his pace only dropping to two and a half miles over soft sand. But if camels graze as they go, as is usual on steppe, it seems that even two and a half miles is too high an average for ordinary caravans.

The loads carried may rise to 400 lb., but naturally vary with the camel's size and strength, the nature of the country, and the length of the stages: on desert routes, 330 lb. have been given as an average burden, and exceptional animals will carry up to 600 lb. From the above facts it may be inferred that if camels were available in sufficient numbers they might, under favourable conditions, supply a considerable army. General Skobelev told Nolde that with a million camels he could secure the transport of 150,000 men invading India.

Horses in Arabia are ridden by Sheikhs and their relatives, and are especially valued for use in war, since over short distances they will outstrip or overtake even the fastest *dhelūl*. For purposes of general transport, they are negligible, as they soon suffer from thirst and cannot stomach the coarse grazing which contents

the camel. According to Doughty, a horse in summer will drink one-third more than a camel, and the carriage of water for it on a long journey becomes a serious impediment. Food is hardly less troublesome, though with the nomad tribes the difficulty is overcome by providing the Sheikh's mare with a foster-camel, on the milk of which she lives when other food is not to be obtained. For these reasons the horse is an expensive possession, and is not owned by poor men. Arab horses are entire, and mares are preferred for riding. As a rule, the Bedouin rides either bare-back, or on a pad with a slender girth, guiding his mount with a halter only; the bit is unknown in the desert, and hoofs are commonly left unshod. But on the Syrian borders even Bedouin sheikhs will ride with a Damascus saddle and stirrups, using the sharp Syrian bit; they will also shoe their mares, purchasing their yearly provision of horseshoes in the *Hajj* market at Damascus. Even in the Sa'ūd country, Doughty observed nomads' horses shod.

More important for transport purposes is the ass, which is patient of thirst and need only be watered every second day. The Sulubba have no other beasts, yet cross with impunity waterless regions which the Bedouins with their *dhulul* do not lightly pass. Asses are said to stand the sharp stones of *harrah* desert better than camels, and for short routes of about forty miles may render useful service; a European traveller rode one between Hofūf and 'Oqair (see Route No. 11). In towns and villages donkeys are numerous and are commonly ridden in the large oases; some kinds, such as the white breeds of Hasa and Mecca, have a more than local reputation. It has been stated, on exceptionally good local authority, that the good Mecca donkey can go from Jiddah to Mecca (50 miles at least) in from six to seven hours, whereas an envoy from Ruweis, mounted on a good *dhelul*, in 1916 took nine hours for practically the same distance, from Ruweis (4 miles N. of Jiddah) to Mecca. The mule is less frequently seen than the ass. Mules carried litters on the pilgrims' route from Damascus in 1876, and were observed raising water on the same route, yoked to the *dūlāb* or well-machine.

THE CAMEL TRADE OF ARABIA

The camel-breeding tribes in Arabia are as follows:

In the North, the Ruweilah, Fed'ān, 'Amārāt, and Sibā'. These four Anazah tribes are by far the most famous breeders, and their herds are larger than those of any other part of the desert. The Beni Sakr and Huweitāt rear camels, but in smaller numbers. The Shammar of the Jezirah (Mesopotamia) are poor in camels.

In Central Arabia, the Shammar of Jebel Shammar, the Ateibah, the Qahtān, and the Dawāsir. Of these the most-renowned camel breeders are the Qahtān, though they cannot rival the Anazah. Some of the Harb, the sub-tribes of the Beni Sālīm, and the Beni 'Alī are camel owners.

In Eastern Arabia, the Muteir, the 'Ajmān, to a lesser extent the Dhafir and the Murrah. The Manāsir, south of the Murrah on the edge of the great sand desert, have few camels and are seldom seen by the merchants of the Qasim. The camels of Oman, like those of Aden (see above, p. 14), are to a great extent absorbed by local requirements.

The camel trade has its centre in Damascus, where almost all the capital is supplied. The principal merchants were, in 1914, Mohammed el-Bassām, a native of the Qasim, who held half the trade in his hands, Yasim edh-Dhiyāb, Suwwāh, Ibn Rawwāf, and 'Abdullah Haleisi. These bring yearly into Damascus 300-400 ra'iyahs, i. e. 24,000-32,000 camels. There are one or two dealers in Baghdad, such as 'Assāfi and Dā'ūd ibn Juweili, but these handle a much smaller number of beasts. They buy from the tribes near the 'Irāq, chiefly from the Shammar and the 'Amārāt, and sell in Damascus, where alone there is any market. About 300 camels are sold in Aleppo every Wednesday for six months in the year. These are mostly from the Sibā' and Fed'ān, but some come from the smaller people in the Jebel el-Hass and the Euphrates valley. Most of the beasts are driven from Aleppo straight over the Amanus into Asia Minor, but a few go south to Hamāh for Damascus.

The dealers of Damascus and Baghdad employ as buyers men of the 'Uqail. In the days when the strong hand of Mohammed ibn Rashīd kept the desert under control, a number of Damascenes used to go out and buy from the tribes; but when he died, Central and Western Arabia became so turbulent that caravans could no longer pass through them with any degree of safety, and the well-known Ma'rāwi family are now almost the only Damascenes employed as buyers. The 'Uqail are all Nejd Arabs, townsfolk, or nomads chiefly from the Qasim, but always chosen from among tribes such as the settled Beni Tamīm, who are not engaged in interminable blood-feuds with other tribal groups. They are the recognized guides and conductors of caravans in Arabia, an organization partaking of the nature of a club and a benefit society, with a president who is always a native of Boreidah and head-quarters at Baghdad. But though men of the Qasim carry on all the dealings with the tribes, they do it on behalf of the merchants of Damascus or Baghdad; there is no one in the Qasim with sufficient capital

to set up indefinitely, nor would he be in touch with the foreign markets.

In Central Arabia the trade is conducted from the Qasīm. The 'Uqeil buy camels at the beginning of the summer, after the harvest, and towards the end of the summer when the Bedouins need money to provide themselves with clothes and provisions for autumn and winter. There is a complete cessation of the trade during the winter. The Arabs are not in need of money, for they have laid in their winter stock of clothes and provisions, and they prefer to reserve their camels for breeding and for milk. Moreover, there is no difficulty in feeding them after the first winter rains have fallen in November. The 'Uqeil go out to the Qahtān and the Ateibah, but they buy the Dawāsir, Murrah, and Muteir camels in the Hasa. They bring in their purchases to the Qasīm district and keep them out at pasture during the winter. In the early spring they drive them north to the springs of Hazil and across the Hamād, either by Jauf or by more direct lines over the desert. They take *rafiqs* (guides and sureties) from the great Sheikhs of the Anazah, from Ibn Hadhdhāl, Ibn Sha'lān, Ibn Mijlād, Ibn Muheid, Ibn Dughmi, or Ibn Murshid, and cross the desert in complete security, travelling slowly and letting the camels pasture as they go. The journey to Damascus takes about two months. They bring the camels either to Damascus and so down into Egypt, or in small numbers across Sinai. The few Damascenes who buy from Central Arabia come down across the Nefūd to the Shammar, the Wuld Suleimān, and the 'Abdah (these two last have not, however, many camels) and return by the same road, taking a Shammar *rafiq* with them.

The largest number of camels come from the Anazah. Like the Nejd camels, they are bought in the summer when prices are lowest, and the same 'Uqeili who has come up from Nejd with his two or three ra'iyahs in the early summer, may be employed to buy from the Anazah in the neighbourhood of Damascus. He will go down to the Jaulān or to the Eastern Belqa near Qasr el-Azraq, where the Ruweilah are to be found, or to the pasturages round Homs and Hamāh, to buy from the Hasanah and the Sibā'. The Fed'ān must be followed into the Jezīrah, where they camp in summer in the Khābūr valley; the 'Amārāt are mostly on the Euphrates near Museyyib at that season. The purchasing of camels is done through one of the Sheikhs; the 'Uqeil buyer lives in his tent and the Sheikh sees that the animals are delivered at a fair price. In return for his help and protection he receives a *riyāl* on every camel purchased. A Sheikh who attempts to raise his fee runs the risk of losing his custom, and unless he has sufficient authority with his people to

ensure fair dealings and safe transit, he will be avoided by buyers. The Huweitāt are in bad odour on this account. A Sheikh will not willingly sell to any but his own buyer, lest in a succeeding year he should lose his market. He prefers the man he knows and has harboured yearly.

The price of camels has more than doubled during the last fifteen or twenty years. The average price is now £T8 a head, the expenses of the journey come to another £T1, and the camel is sold in Damascus for £T10, leaving a profit of £T1.

The ultimate market is Egypt, which takes an average of 32,000 camels yearly. The Egyptian Government raises a duty on every camel entering the country, and the number of imported camels is therefore accurately registered. This figure represents the whole of the yearly camel trade with the exception of 7,000–8,000 beasts sent every year to Asia Minor, and a smaller demand both for food and for agricultural purposes from Syria, Mesopotamia, and Arabistan, which may be put at about 5,000 camels annually. There is no camel trade through the Hejaz; the mountainous character of the country makes it unsuitable for camel traffic. The tribes between the Qahtān district and the Hejaz, Sebei', Shalāwah, and Buqūm, are sheep-breeders. The tribes along the coast, Juheinah, Billi, and 'Atiyah, do not rear camels; they keep them only in sufficient quantities for their own transport purposes and for milk. Nor are the Harb on the coast camel-breeders. The Ahamda, one of their principal sub-tribes, are camel-drivers and carry on the transport trade between Mecca, Medina, and the sea.

It would be impossible to arrive at an accurate estimate of the camels in Arabia, but a rough approximation based on Arab figures may be attempted. The herds of the Northern Anazah, who are the tribes richest in camels, may amount to as much as 300,000 head. This would include breeding-camels and those not yet fit for service. (A camel is not reckoned fit for full work until it is six years old, and its best years are from six to twelve.) The Shammar of Jebel Shammar may have about 80,000. The herds of the Emir himself do not number much more than 1,000. The Muteir have 60,000–70,000; the Dhafir 20,000–30,000; but all authorities agree that the Qahtān are exceptionally rich in camels, and their herds may run to 100,000 head, or even more. The Emir Ibn Sa'ūd, who draws his supplies chiefly from the Qahtān, Dawāsir, Muteir, Sebei', and Sahul, is said to have 4,000 good riding-camels. The Ateibah are not so renowned as the Qahtān for camel-breeding, but their numbers cannot be much under 80,000. The Harb must be estimated at about 50,000 to 60,000, the Sukhūr and the Huweitāt at 20,000 and

10,000 respectively. The 'Irāq yields no camels. The Muntefiq and the tribes along the two rivers are cultivators; few of them own camels even for agricultural purposes, their live-stock consisting of sheep and goats. The Duleim are sheep-breeders and supply the Damascus market. The Shammar of the Jezirah are said not to have more than about 10,000 camels; their Sheikhs remain fairly stationary within small areas, whereas the owner of great camel herds must be continuously on the move. The Kurdish tribes of the northern Jezirah rear flocks of sheep and are visited by the Damascene sheep buyers every spring; but they are not camel owners. At this estimate the herds of the tribes, who are the principal breeders, come to 720,000 head, and beyond this figure a margin must be allowed for the tribes who breed in small numbers, and contribute irregularly to the Syrian market.

These figures can be checked by a calculation based on the number of camels which come annually into the market. It must be borne in mind that the Bedouins sell only their surplus. During the spring and early summer nomad Arabia lives principally on the milk of the camel, and it has no other means of transport. The best riding-camels, the *dhulul*, are always females, and are not allowed to breed. Thus Arabia exports annually:

To Egypt	32,000		
To Asia Minor	7,500		
To Mesopotamia	}	. . . . .	5,000
Arabistan			
Syria			
			<hr/> 44,500

Using the figures supplied by the Egyptian Government statistics on camel-breeding, an annual surplus of 44,500 camels implies a total of 750,000 head in the herds of Arabia. This figure corresponds well with the figure given from native information, namely 720,000 plus the herds of the smaller tribes, and may be taken as a working basis for calculations relating to the possible supply of camels from Arabia.

It would be exceedingly difficult for the Ottoman Government to alter materially the established course of the camel trade. For example, to purchase through Ibn Rashid any considerable number of camels would be almost impossible since the trade is in the hands of the 'Uqeil, and the Sheikhs would not willingly deal with other buyers. Even if Ibn Rashid were to sell Shammar camels to the Ottoman Government, Ibn Sha'lān, the paramount Sheikh of the great Ruweilah Confederation, would probably hold them up as they crossed the Hamād; and there is no other road by which they

could be brought into Syria. An attempt to take camels in large numbers via Diarbekr or even up the Euphrates, and so direct to Aleppo, would not meet with success. The journey is too long, and the difficulty of feeding the camels on the way too great. Pasturage is always scanty along frequented roads. The Ruweilah, who are the camel breeders nearest to the Syrian frontier, have shown great unwillingness to sell to the Turks. In common with other tribes bordering on Syria, their chief anxiety since the outbreak of war between Turkey and Great Britain seems to have been lest their camels should be commandeered for military purposes. They hastily settled their differences with one another and retired into the centre of the Hamād. The Sukhūr and the Huweitāt crossed the Wādi Sirhān and took refuge in Ibn Sha'lān's country. When last heard of, in 1915, they were east of 'Amūd, in the Wadyān, and had penetrated as far east as Māt and Ibn Hadhdhāl's pasturages. The Turks commissioned Mohammed Bassām, Ibn Rawwāf, and Ibn Dhiyāb, well-known Damascene buyers, to send out to the Ruweilah and purchase from them, but the attempt was made very half-heartedly, and the results were next to nothing. The camels used in the attack on the Canal, in 1915, were procured in Syria and were unsuitable for a desert campaign; consequently the losses among them were heavy. At the present time it is possibly to the advantage of the Ottoman Government that the Bedouins must be short of ready money and that the surplus of camels must be double that of ordinary years, since there was no selling done in 1914; but, so far as our information goes, it points to the conclusion that the Turks met with no less difficulty in 1916 in providing camel transport for Sinai and sought vainly to meet the need by applying to Central Arabian Sheikhs. It seems likely that the Anazah are still holding back in their eastern pasturages, an attitude which should be encouraged.

CHAPTER II

COMMUNICATIONS

THERE are no made roads, cut, embanked, metalled and bridged, in Arabia, except in the Aden district and on the line Hodeidah-San'ā. The great majority of the tracks of communication follow natural contours, picking the easiest way round or over rocks, sand-billows, ravines, &c. Their course is determined by the situation of water, where this is accessible. Certain lines of communication have been made feasible by provision of wells or cisterns. The latter were constructed in early times along all main pilgrim-tracks, but they have largely been allowed to go to ruin; and it must always be borne in mind that wells and springs, in such a country as Arabia, are often found dry, choked, or fouled by the carelessness of the Bedouins in watering animals.

Where lines of communication cross open steppe country, which, from the occurrence of hilly patches (such as the *Harrahs*) within it or on its edges, has ground-water at accessible depths, Bedouins will range widely and dig wells for camping centres all over the district. The communication tracks will then be multiple, not necessarily keeping to one direct line; and two different parties proceeding from one end of the route to the other may follow quite different tracks, or cross and recross each other's line, in progress from camp to camp of Bedouins at the pleasure or convenience of their guides or *rafiqs*. The route-schemes adopted are therefore subject to much variation in actual experience in such regions (e. g. on the Ateibah Steppes between Mecca and Qasim), and must be taken only as general guides of direction along possible tracks.

The different main Routes are set out schematically in the following chapter. We shall deal with them here only generally and in groups, as they converge on certain centres, retaining the same order and describing their general character and the nature of their supplies.

A. NORTHERN ROUTES (Nos. 1-7)

These are all more or less desert-tracks, that is, they must cross at some stage or stages enough steppe or sheer desert to render it

necessary, or at least prudent, to carry water for man and beast for more than a day's journey. But only one of them is rendered dangerously difficult by natural causes, namely No. 1 (Jauf to Hā'il via Jubbah), on which continuous deep *nefūd* sand, with no possibility of water, must be traversed from four to six days. Here a mistake of direction or a breakdown might easily involve a party in destruction. Curiously enough, however, this road is the one which has been followed most often by European travellers, the reason being that, up to about 1890, provision of water on the much easier route from Jauf, No. 2 (via Hayyāniyah), had not been secured. It was only after the Emir Mohammed of Hā'il had cleaned out, and fortified with a block-house, the Hayyāniyah wells, and at the same time curbed the tendency of the Anazah and Dhafir tribes to raid this part of the northern desert, that the eastern route, which nowhere encounters any very broad or deep sand-belt, came into favour.

The quickest and easiest route from Syria to Central Arabia is, of course, by the Hejaz Railway to Qal'at el-Mu'adhdham (Route No. 20), or some point south of it. The Mu'adhdham route is that taken habitually by the couriers of the Emir of Hā'il, who cover the distance from the capital to the railway in three stages on their fast dromedaries. From Medā'in Sālih, El-'Ala or Hadiyah (via Kheibar) Qasim can be reached almost as quickly.

If this railway be not utilized, the points of departure are either **Jauf el-'Amr** or a settlement in the lower Euphrates valley, preferably **Nejef**, **Samāwah**, or **Sūq esh-Shuyūkh**, the last being least in favour owing to danger from the uncontrolled Dhafir and Muteir tribesmen. From no points lower down the valley or along the Shatt el-'Arab is there any but a very difficult direct track to Hā'il. Apart from the human dangers just mentioned, the south-eastern corner of the Northern Desert presents special difficulties of relief and intricate and irregular dune-formations.

From these points the tracks converge on one or other of two urban centres in the Centre, **Hā'il** or **Boreidah**. The latter lies to the south-east of the former, but caravans do not necessarily pass through Hā'il to reach it.

All these routes are possible for the passage of regular armed forces of moderate size, if special arrangements have been made for their transport and supply on the way, except probably the Jauf-Jubbah-Hā'il route, which lies for four to six days through deep waterless *nefūd*. For example, over the Darb es-Selmān and Darb

Zobeidah routes from Samāwah and Nejef to Hā'il (see below, p. 26 f.) Turkish columns have twice marched comparatively recently (1903 and 1905). On the first occasion 2,000 men, and on the second six battalions got through to Hā'il and beyond. But it should be observed that, on each occasion, they had been invited by the Emir of Hā'il, who provided guidance and transport. Without these facilities (still more, had the Emir actively opposed) the result would, in all likelihood, have been different. The distance from Samāwah to Hā'il was covered by Ahmed Feizi's force (late winter, 1905) in about three weeks.

Supplies. It goes almost without saying that, under ordinary circumstances, supplies are unprocurable on every one of these routes, except at their starting and arrival points. As for *food-stuffs*, animals for killing might be obtained from herdsmen near the tracks, if the passage were made in spring. *Forage*, except such as camels can eat, is equally non-existent. The only *fuel* is afforded by sparse and low bush vegetation in the desert hollows, and a comparatively small party would soon exhaust a considerable area round its camp. *Water*, except immediately after rain, when *khabrahs* (pools) might be met with, is everywhere scanty and difficult of access. The only intermediate wells yielding a sufficient supply for more than a small party are those at Jubbah, Hayyāniyah, Hazil, Shaqīq, Lōqah, Leinah, and others within a radius of seventy miles from Hā'il.

(i) *Routes from Jauf*

In addition to those set out in detail, there is a direct track across the Nefūd to Teima ; but since it crosses much heavy sand, has never been traversed by a European, and is, apparently, not much used, it is not described among our Routes. In common with Route No. 1, it is rendered unsafe at present by predatory Huteim during the only seasons when it could be travelled without great suffering.

On the general character of **Route No. 1** (from **Jauf** to **Hā'il** via Jubbah), see above. Its track lies mainly across the Nefūd and is very trying and tedious owing to the constant ascents and descents of the billowy dunes and gigantic horse-hoof hollows, characteristic of this region, and to the long détours which have frequently to be made in avoiding the larger and sandier of them. The undulations for the most part are covered with deep and loose sand, in which the animals' feet often sink very low. These the Bedouins of the district call by the name *felj*, or *felq*, and *qa'r*, plurs. *fulūj*, *fulūq*, *qu'ūr* (see also Vol. I, Chap. XII).

Supplies. *Water* was formerly reported as sufficient at Jauf and Shaqīq and again onward from Jubbah, but in the long stage across the Nefūd, between Shaqīq and Jubbah, it has always been unobtainable. Dried 'ghadha' and 'yerta' bush (the latter a kind of thickly-matted wild-vine) make excellent *fuel* and are abundant all the way across the Nefūd. *Fodder* for camels and sheep is also very abundant and varied and includes a kind of grass known as 'nassi' and in particular a plant called 'ādar', on which it is said that sheep can feed for a month without water. At Jauf and Hā'il a certain amount of live-stock, poultry, and fruit would be available.

Since it is now reported that the settlement in the Jubbah oasis, which alone rendered this line of approach practicable for caravans, has decayed and is abandoned (possibly owing to encroachment of sand), the route has probably passed almost out of use.

On the other hand **Route No. 2** (from **Jauf** to Hayyānīyah and so to **Hā'il** or **Boreidah**) is now constantly taken, and it appears, from Shakespear's account of his journey in 1914 from Hayyānīyah to Jauf, to be surprisingly free from deep or broad sand-belts. Between Jauf and Hayyānīyah it is necessary to carry water for three days, but to a well-equipped party the track threatens no danger. It keeps too far eastward for the Huteim to trouble it seriously, while it is too far westward for the Dhafir raiders. Since, however, Jauf has passed out of the hands of the Emir of Hā'il into those of the Ruweilah chief, his hereditary foe, transit is less frequent and security less assured between Jauf and Hā'il than was the case before 1910. At Hayyānīyah, Nolde saw great numbers of Ruweilah; Shakespear found the fort at the wells occupied by a small post of the Emir of Hā'il's men. It should be noted that the section from Hayyānīyah to Hā'il is described under Route No. 4, with the closing stages of which (from Hayyānīyah onwards) it corresponds. Route No. 2 is continued from Hayyānīyah direct to Boreidah.

The route skirts the E. side of the Nefūd, crossing projecting tongues of it, as between Qasr el-Adhfa and Hayyānīyah, and series of sand-ridges, as at 20 miles beyond Bir Zerūd. Except at the two last-named places, halts are optional, as there are no villages nor settlements between the neighbourhood of Jauf and that of Boreidah. For about 100 miles between Jauf and Qasr el-Adhfa, the way lies in or along an extensive wādi continuous with the Khubb Labbah; it seems possible that this valley may be connected with the great

Wādi el-Khar which runs into the Bahr en-Nejef, for Leachman was told that the Wādi el-Khar had its head 'near Lubbe in the Nefūd near Jauf'. At mile 260, some 63 miles beyond Hayyāniyah, the track crosses the Darb Zobeidah, and at mile 356 the route from Samāwah to Boreidah. Nolde's route from Jauf to Hā'il took a more direct course across the Nefūd.

Supplies. There is no water between Howah (Hoa) or Shāqīq and the wells of Hazam el-Mai near the 110th mile. After this there is another long interval of about 90 miles before Hayyāniyah wells are reached; this is followed by a third waterless tract between these wells and the Bir Zerūd. After Zerūd there are wells on or near the route at distances of about 40 miles or less. There is sufficient *grazing* for camels along the route, but no food-supplies.

(ii) *Routes from the Euphrates Valley*

(a) *From Nejef or Samāwah*

There are three recognized routes between **Nejef** and **Jebel Shammar**. The best known, although no longer the most frequented, is the *Darb Zobeidah* (**Route No. 3**), which runs due south to Birkat ez-Zebālah (Zobalah), and thence slightly west to the wells of Sha'ibah, skirting the edge of the true Nefūd, but crossing a few tongues of sand which extend eastwards from the main sand-bed. Here the track divides—south-eastwards to Boreidah, and westwards to Hā'il. Huber accomplished this journey in 35 days, but remarked that it could easily be done in 12 days. The Blunts took 22 days' actual travelling, but were much hindered by the Hajj, which they accompanied. There is a continuous series of tanks and wells, but in spite of this the route has fallen into disuse. Even in Huber's time (1884) he had to confess that the pilgrims were unable to make use of the route which had been especially constructed for them. The rains are not sufficient to fill the reservoirs, and therefore the more direct and safer track by Lōqah and Hayyāniyah is the favourite one. Apart from the question of water, the Darb Zobeidah presents few physical difficulties for camel transport except at the Jāl el-Batn and possibly along the sections where intermittent tongues of the Nefūd have to be crossed. The line followed is subject to deviations according to the season and political circumstances. It should be added that there is an alternative route which diverges from the Darb Zobeidah about 40 miles S. of Nejef, and, running by the wells of Selmān and Leinah, rejoins the Darb Zobeidah at Khadhra.

Supplies. For *water*, see above. In full summer and autumn all supplies must be carried from the starting-point; but *fuel* and *fodder* are generally found along the track in sufficient quantities for small caravans.

Both the Hajj and the food-caravans bound for Hā'il now follow the track via Hayyāniyah (**Route No. 4**, from Nejeſ to Hā'il) in preference to the Darb Zobeidah, on account of its directness and greater safety from raiders. The line followed lies about 40 miles to the west of the Darb Zobeidah; the total distance is about 357½ miles. It runs through grazing grounds, which from mid-winter to early summer are occupied by the Shammar tribes; while during spring and summer the half-settled Shiah tribes, who own cultivated land and mud villages on the Euphrates, descend to the desert to pasture their sheep and donkeys as far south as 120 miles from Nejeſ. Thus only the first stages from Nejeſ are sometimes insecure, while for travellers authorized by the Shammar it may be regarded as a safe road.

The track lies over good hard desert, except for the 50-mile wide belt of Nefūd, which is crossed during the last few stages. The average altitude is between 1,000 ft. and 2,000 ft. The country rises to 1,000 ft. above sea-level about 4 days to the south of Nejeſ; half-way to Hā'il it is 2,000 ft., rising slowly to 2,500 ft. on the southern edge of the Nefūd, and suddenly lifting to 3,500 ft. at Hā'il. As far as the Batn the country is a featureless region of stony flats and shallow ridges through which winds the Wādi Hisb. The stony desert of Hajarāh, which follows, has an ill repute on account of loose sharp stones liable to lame camels; but travellers do not always note this feature. The eastern part of Nefūd which the route crosses is less difficult than the western half; the sand is seldom deep, while the track is well marked. No part of the road is metalled, and, like other desert routes, it is impassable for camels after rain, except where it crosses sand. Lying between the Darb Zobeidah and the track via Bir Samīt and Hazil, the route appears to be the most direct track between Nejeſ and Hā'il.

Supplies. *Water* is not plentiful. Along the northern part of the route the presence of shepherds in the Batn and the Wādi Hisb suggests that accessible pools must lie off the route between the regular watering-places. At these, with the exception of Lōqah, there is only sufficient water for quite small parties. Although the permanent wells along this route are very scanty, there are *khabrahs*, or rain-pools, varying in number and extent according to the season. Water lies in shallow bottoms on the southern edge of the

Nefūd, along the Wādi el-Khad and its tributaries, in certain muddy channels known as the Jawārīd, about 50 miles north of the Batn, and in the Wādi Hisb. Such supplies as these are exhausted in summer. The permanent watering-places are Lōqah, Hayyā-nīyah, Tayyim, and Jeithanīyah. In winter there is sufficient *camel-grazing* all along the route. In full summer all food-supplies must be carried from the starting-point ; but in winter and spring fresh meat can be obtained from the herds.

One other route has been followed between **Nejef** and **Hā'il**, namely that taken by Wallin in 1848. This track (**Route No. 5**) leads from Nejef direct to the wells of Hazil, more or less following the course of Wādi Hisb. Thence one passes to Hā'il, without touching at Hayyānīyah, the total journey taking 15-16 days. It is a desert route, and, after leaving the region of the Euphrates, crosses the stony Hajarah desert for many days, and afterwards the eastern side of the Nefūd. Fixed points for camping are determined only by the rare wells, and intermediate halting-places are optional. In Wallin's time the route was supposed to be safer than the more easterly Darb Zobeidah, and to be used by peaceful caravans. Wallin noted the presence of Huteim at Bir Tayyim, in the summer ; and Leachman states that the 'Amārāt clan of the Anazah frequent the wells of Hazil. The same traveller met, at Bir Samīt, Madan Arabs from the Euphrates, who are apt to be better armed than Bedouins, and in so far may be a greater danger to caravans. In June 1912, Hazil was the scene of a successful attack on the Shammar by the Ruweilah Anazah, who killed 23 men. This route appears to be the Darb el-Ghazāl, though according to Leachman no such name is now familiar to the Arabs.

Supplies. There are long intervals between the wells, and except after rains, *water* cannot be relied upon between Bir Samīt and Bir Hazil (111 miles), or between Bir Hazil and Bir 'Atwa (95 miles). *Fuel* and *camel-grazing* are obtainable in most places. Food-supplies are not available between Nejef and Hā'il.

The track from **Samāwah** to **Boreidah**, which is known as the Darbes-Selmān as far as Leinah, is here described as **Route No. 6**. This route presents few exceptional difficulties, but runs for the most part over different kinds of desert, passing no place with settled inhabitants throughout the 309 miles between Samāwah and Quseibah. Bedouins may be encountered at Leinah, Zubīri, and Jufrah (Gofra), and probably at other wells ; and the closing stage

from 'Ayūn el-Qasīm to Boreidah, which is traversed also by Route No. 15 (see p. 35), may be far from secure. The going is heavy for laden camels while crossing the sand-dunes in the first stage after Leinah, and again between Zubiri and Hubiri. The loose stones on the Hajarah desert and the Teisiyah plain are likely to lame camels.

Supplies. *Water* at the first and third stages is of indifferent quality, and at the second, fourth, and fifth stages the supply depends upon rain. Leachman believes the Hajarah desert as a whole to be well provided. At Leinah the water is so abundant that the wells are said by the Dhafir to yield enough for their whole tribe. There seem to be four waterless stages between Leinah and Zubiri, and two between that place and Hubiri, where the supply is again dependent upon recent rain. It is not till Quseibah that abundant wells are once more reached, after which there is no further difficulty. *Fuel* and *camel-grazing* are described as scarce in the early stages, but sufficient after Leinah. The Nefūd tracts furnish abundance, as also the wādi beds in the Teisiyah plain. Provisions in any quantity are not obtainable between Samāwah and 'Ayūn (pop. 4,000). Transport animals other than camels are owned in numbers by the tribes about Samāwah.

All these last routes are subject to Dhafir and other raids, and are less safe in their early stages from the Euphrates valley than after the Shammar dīra is reached.

(b) *From Sūq esh-Shuyūkh*

The track from **Sūq esh-Shuyūkh** to **Hā'il**, which is here described as **Route No. 7**, leaves the Euphrates at Sūq esh-Shuyūkh and, after traversing a gravelly desert through the dīra of the Muntefiq and that of the Dhafir Arabs, reaches Leinah on the border of the Nefūd. It then crosses a tongue of the Nefūd to Bir Belegbīyah, whence it follows the Darb Zobeidah, or Persian Pilgrim route, to Hā'il (Route No. 3).

Supplies. The route is possible for camel transport. *Water* is obtainable except for four stages between Qasr Bir Shaghrah and Bir Arkamīyah, and for two stages between Bir Unsab and Bir Umm 'Amārah. *Fuel* and *fodder* are plentiful, especially between Bir Arkamīyah and Bir Belegbīyah, though in summer the fodder is parched. General supplies are only obtainable at Sūq esh-Shuyūkh and at Hā'il.

B. EASTERN ROUTES (Nos. 8-14)

Of those making for the Centre, one group starts from **Zobeir** (**Basra**) or **Koweit**, and goes to **Boreidah**, and by divergence to the right, near Zilfi, to **Shagrah** or **Riyādh**. The other group starts from ports on the midway shore of the Persian Gulf, **Qatif** or **'Oqair**, and goes in the first place to the **Hasa Oasis**, and thence to **Riyādh**. A direct route also connects **Koweit** and **Riyādh**, but, though followed by Pelly in 1865, it is not much used, owing to the length of the waterless stages to be covered and the lack of camps along its line. Further there are link-routes between **Koweit**, **Hasa**, and **Qatif**. The line Zobeir (or Koweit)-Boreidah is of great importance as a section of the chief trans-peninsula route, which starts from Mecca or Medina and traverses Qasim. For the passage both of trade and (in less degree) of pilgrims no other cross-Arabian track compares with it. The eastern section is rendered passable by the Bātin depression—the lower course of Wādi Rummah—which offers a line of deep, but possible, wells for nearly 300 miles. In the first third of it, owing to the larger rainfall of the Gulf littoral, not only are these wells to be relied on, but also watering-places are scattered thickly over a wide area to the south of the Bātin, and therefore cross-routes come into it, at such points as Riqā'i, Hafar, and Ajibbah. But, owing to the uncertainty of the wells along the line, stages have not been defined so precisely on Routes Nos. 8 and 9 as on other Arabian routes.

(i) *Routes from Zobeir and Koweit to the Centre*

These are all subject to raids by the Muteir, and if there is active war between this tribe and the Shammar of Ibn Rashid, they are very unsafe. In their latest stages they come within range also of the Ateibah, who are particularly to be feared in Sedeir. The tribes of the Gulf littoral (Beni Khālid, 'Ajman, &c.) are seldom found in force so far north.

Route No. 8, from **Zobeir** to **Boreidah**, joins that from Koweit to Boreidah (Route No. 9) at Riqā'i, and the section common to them both, from Riqā'i to Boreidah, is described under the latter route. It will suffice here to note that the section from Zobeir to Riqā'i, as a camel-track, presents no important physical obstacles. Halting-places are optional, since there are neither wells nor important camping-grounds.

Supplies. There is no *water* between Zobeir and Riqā'i, at which

place there is only a scanty supply after rain. There is enough *camel-grazing* for a small caravan; *fuel* is scanty. There are no food supplies along the track.

Route No. 9, from **Koweit** to **Boreidah**, presents no serious difficulties. Shakespear maintained an average of about 3 m. an hour; even when crossing Dahanah, he did not fall below $2\frac{3}{4}$ m. The course of the Bātin is clearly defined, its breadth varying from 2 m. at Riqā'i to more than twice as much at Hafar; its banks are highest between Burj esh-Sherif and Qulbān Ibn Towala, where they resemble cliffs. After Ajibbah, the Bātin is left for a straight track to Boreidah across *nefūd*, stony plain and desert.

The route passes no places with settled inhabitants between Jahrah and 'Ain Ibn Faheid, running for about 300 m. through lonely country without obvious camping-grounds other than the best-known wells, such as Hafar or Thamāmiyah. Halts are therefore optional over a great part of the route, and even before the Bātin is reached camps cannot be indicated for every day. In the Bātin, between Riqā'i and Hafar, and in the long stretch between Hafar and Ajibbah, the convenience of the day's march decides the halting-place; in this stretch, Shakespear camped six times.

Supplies. After Jahrah, no food nor supplies are obtainable before the village of 'Ain Ibn Faheid, towards the end of the journey. *Water* is obtainable at frequent intervals, and it is seldom that a stage is passed without a well. After rain, pools form in many places, and remain for about a week; in February 1910, Shakespear's progress along this route was twice delayed by heavy rain. Except over a few stretches, there is enough *camel-grazing* for a small caravan. *Fuel* is sufficient after Haleibah.

In **Route No. 10**, from **Koweit** to **Zilfi**, there are no great physical obstacles, for where the Dahanah zone is crossed it is only about 15 m. wide. There is often no defined track, so that it is necessary to travel with a good Bedouin guide. The route passes no villages; as wells are very few, the choice of camping-grounds is arbitrary, and it is difficult to indicate daily stages. Raunkiaer, travelling at about $2\frac{3}{4}$ m. an hour, occupied 107 hours, camping fifteen times between Koweit and Zilfi; his total distance must be about 300 miles. As given by Lorimer and Indian Govt. Rd. Bk., the distance, via Subeihyah wells, is 283 m., but these authorities describe the Summān zone as crossed in one day's journey SW. of Sāfah, whereas Raunkiaer took more than twice as long. The route is considered comparatively safe, but Raunkiaer paid a tax to the Muteir at Koweit for the use

of the wells, a representative of the tribe remaining with him as far as Jau ez-Zōr. At Artāwīyah a settlement of Bedouins is said to have been established within the last ten years, and Raunkiaer did not think it advisable to camp near the wells.

Raunkiaer's mention of a cairn over a pilgrim's grave at Rejīm shows that the route must have been used occasionally by pilgrims from Koweit to Mecca, by Boreidah. At Sāfah it is joined by tracks NW. to Hafar, and SW. to Mejma'. At about 15 m. SW. of Artāwīyah, another track runs S. into Sedeir. Shakespear, travelling from Koweit in 1910, must have followed a course very near to that of Raunkiaer between the Shaqq valley and Sāfah.

Supplies. After the first two stages from Koweit, *water* cannot be relied upon before Sāfah, a distance of more than 100 m., and an equally long interval without wells separates that place from Artāwīyah; it is therefore necessary to carry a supply sufficient for 4-5 days, though after rain various hollows collect water. *Fuel* is very scarce; *firewood* should be carried while crossing the Qarā' waste, and after leaving Sāfah. *Grazing* is fair during the initial stages, but absent in Qarā'. It is sufficient about Sāfah, and is found in hollows in the Summān zone, as also about Safīyah, Artāwīyah, and Sebillah. No regular *food supplies* are obtainable between Koweit and Zilfi, but Raunkiaer observed gazelles and numerous hares in the district of Qarā', and truffles were abundant both here and in the Dibdibah. The same traveller notes that the Beni 'Abdullah drive their goats across the Dahanah zone into Summān.

(ii) *Routes from 'Oqair and Qatīf to the Centre*

These afford the shortest and easiest passage into Nejd. Regular troops of Ibrāhīm Pasha traversed this stretch with guns in 1818-19, and irregular Nejdean forces have imitated them on several occasions. The country crossed, however, is, or was till lately, conspicuously unsafe. Not only are the notorious Beni Hajar to be feared between Qatīf and Hofūf, but west of the Hasa the desert is ranged by several tribes whose dīras and rights to wells are in great confusion and eternal dispute. Consequently *rafiqs* have to be continually changed, and it is difficult to know, and often quite uncertain, what *rafiq* is to be taken to secure a party from molestation. The 'Ajman from the north, the Ahl Murrah from the south, and parties of Dawāsir from the south-west, are the chief disputants, and of these the two last are reputed not to observe over strictly the Bedouin code in regard to *rafiqs*. Nothing but the strong overlordship of the Emir of Riyādh can guarantee a caravan.

After leaving the coastal tracts and the oases, **Route No. 11**, from 'Oqair, or Qatīf, to Riyādh, resembles in its essential features Route No. 10, crossing the two waterless deserts of Summān and Dahanah; it passes no places with settled inhabitants between Hofūf and Nejd. As has been already stated, attacks may sometimes be expected from Bedouins ('Ajmān, Ahl Murrah, Beni Hajar, and Dawāsir), who also camp in the neighbourhood of the wells at Ajafiyyah. The country near Hofūf is reputed to be unsafe, and caravans between that town and the coast go armed.

Supplies. At Hofūf and Qatīf, grain, rice, sugar, fruits, and *ghi* in small quantities; nothing between these places and Riyādh. *Water* cannot be obtained in the Summān and Dahanah zones, and it is necessary to carry a five days' supply. The wells to the E. of the desert area, Jūdah and 'Aweisah, are described as yielding water in abundance. The same is the case with Abu Jifān on the W. side; but the supply at Ajafiyyah is not always ample, and the pools at Jalta Sadeiri are said to be at times exhausted. Between the W. of Dahanah and Riyādh, the wells on the main route at Tarābi and Miyāhiyyah afford a regular supply. On the section Qatīf-Hofūf, water is sufficient, but not of good quality. Between 'Oqair and Hofūf there is no scarcity by the longer route, except at Shātar; on the direct route followed by Raunkiaer there are no wells. *Fuel* and *fodder* are scanty in the desert zones, and between the Hasa oasis and Wādi Farūq.

(iii) *Linking Coastal Routes*

The two preceding groups of routes are linked up by tracks from Koweit, which, running parallel to the coast, terminate at Hofūf and Qatīf respectively; these are described in this subsection. A third route connects Zobeir with Koweit, an easy track leading from Basra to the wells of Zobeir, which lie in steppe 10 miles from the town. From Zobeir there is a choice of two or three tracks leading over low plateau country, with abundant ground-water at from 5 to 12 feet below the surface, to the Gulf coast at Khutai (80 miles). At Umm Qasr, about half-way, is a small outpost station of the Sultan of Koweit. The first village on the shore with good water (not salt) is Jahrah, 14 miles farther, where the Sultan of Koweit keeps an outpost force.

Route No. 12, from **Koweit to Hofūf**, traverses the Koweit districts of 'Adān, Salū', Hazeim, and Sūdah, then the Hasa tracts of Radā'if, Wādi el-Miyāh, Hahl, and Jauf. The route to Qatīf

branches off at Inqair. The travelling is good, the surface being for the most part level and increasing in firmness after Salū'.

Supplies. *Water* is obtainable throughout, and usually plentiful; in the Hasa oasis it is abundant. *Fuel* is plentiful in the villages of the first stage, but scarce between Shi'aibah and Salū'. At Mazharah and Ntā' (Antā') it is abundant, but, after this, rare except in the form of *ghadha* bushes and brushwood. *Fodder* is generally good, especially in spring. At Hofūf, small quantities of *ghi*, sugar, rice, dates, figs, citrons, and Arab clothing are obtainable. At Ntā' there is a little wheat and barley; there are camels, donkeys, and cattle both here and at Sarrār. General supplies must be taken from Koweit.

Route No. 13, from **Koweit** to **Qatif**, coincides with Route No. 12 as far as Inqair, and then traverses the Hasa tracts of Radā'if, Huzūm, and Biyādh. It is a little-frequented track obviously inferior in convenience to the maritime route. There are no physical difficulties, and the surface is generally good.

Supplies. *Water* good at the first stages, at Ntā', and throughout Biyādh; abundant in the Qatif oasis. *Fuel* is scarce in Salū', and from Tareifah to the Qatif oasis, where it becomes plentiful. *Fodder* is usually sufficient for a small caravan, though scanty between Shi'aibah and Salū', and between Inqair and Tareifah. *Food supplies* must be taken from Koweit.

Though **Route No. 14**, from **Koweit** to **Zobeir**, follows an unmade track, it is usually practicable for wheeled transport all the way to Zobeir and beyond to Basra; but the section crossing the Mutlā' pass, 3 miles N. of Jahrah, would require to be made for the passage of any considerable force, and the loose sand before the pass covered with brushwood or other suitable material. The coast-route via Qasr es-Sabīyah and Umm Qasr is cooler, but less adapted to wheel traffic.

Supplies. *Water* abundant at Jahrah; none between that place and Qash'āniyah, a distance of 47 miles; a good supply 1 mile from Safwān. On the coast-route water is more plentiful, but, except at Sābarīyah and Bahrah, of inferior quality. *Fuel* is scarce on the main route except at Jahrah and Rāfidhiyah; on the coast-route there is sufficient for a small force. On both routes there is fair *camel-grazing*. No food-supplies between Jahrah and Zobeir by either route; but at the latter place provisions are obtainable in moderate quantities. In the district of Dirhamīyah, a few miles to the SE. of it, live-stock, rice, maize, dates, and melons.

C. CENTRAL ROUTES (Nos. 15 and 16)

The Northern Routes, after converging on Hā'il, are continued into Qasīm and South Nejd by a trunk-route (**Route No. 15**, from Hā'il to Riyādh) down the central axis of the Peninsula. This has been traversed wholly or in part by regular soldiery with guns on more than one occasion, e.g. from Hā'il to Qasīm by Ahmed Feizi Pasha's expeditionary force in 1905, and from Qasīm to Riyādh and beyond by Ibrāhīm Pasha's army in 1818; also, continually, by irregular forces of the rival Emirs of Hā'il and Riyādh. It presents no serious difficulties, traversing no mountainous nor even hilly country, and, except on one two-day stage between 'Ayūn es-Sirr and Woshm ('Ain el-Jareifah to Shaqrah), being supplied with watering places at convenient intervals. It lies, however, across much lean steppe and some desert, especially in its early stages, between Hā'il and 'Ayūn el-Qasīm, and between Qasīm and Shaqrah. The latter stages, like the medial ones in Qasīm, lie in oasis country.

It is not, however, a great caravan route, like the cross-Peninsular track from west to east, the towns at its two ends, Hā'il and Riyādh, not being commercial centres or connected with the outer world by commercial routes: nor is it a pilgrim road. European travellers have seen all of it, except the first two stages from Hā'il; but Palgrave and Huber made so slight a deviation upon this short stretch, that we can trust their narratives for the general character of the country through which it lies.

This route is comparatively safe from Bedouin raids throughout, unless the Emirs of Hā'il and Riyādh are at war. The least secure stages are that from 'Ayūn el-Qasīm to the neighbourhood of Boreidah, where both Muteir and Ateibah are possibly to be met, and that from Mudhnib to the neighbourhood of Shaqrah, where the Ateibah (Berqah section) penetrate not infrequently. For European or other Christian travellers it has, however, the special disadvantage of lying wholly in Wahabite territory, and necessitating a visit to the peculiarly fanatical town of Boreidah.

Supplies. *Foodstuffs* in any bulk could be obtained *en route* only at Boreidah, Aneizah, and Shaqrah, and there they would be limited to dates, *ghi*, cereals in small quantity, fruits in season and small quantity, and animals for slaughter, the latter nowhere abundant. Nor could any of these towns supply many *transport* animals. The camel-breeding nomads must be relied on for these. *Forage* for equine animals would be unobtainable except in Qasīm.

Fuel would be very scanty except in the latter district and in Wādi Heisīyah–Hanifah. *Water*, as has been said, is fairly abundant except for two stages before Shaqrah is reached. But it is brackish or saline between Qasīm and ‘Ayūn es-Sirr; not good at Boreidah; and often brackish between the latter and Hā’il.

The alternative track from **Boreidah** to **Riyādh**, here described as **Route No. 16**, encounters a heavy sand desert between Wādi Rummah and Zilfi; but it is of no great breadth and contains oases. For the rest of the way the going is hard, and water is never far away. But the political conditions in Sedeir are always uncertain, allegiance being divided between the rival Emirs, and not well assured to either. Moreover, the people are fanatical. Except between Zilfi and Mejma‘, Bedouins (Ateibah) are not to be feared.

Supplies. *Foodstuffs* would be unobtainable between Boreidah and Zilfi, but fairly abundant (on a small scale) on the rest of the route. *Forage* and *fuel* as on Route No. 15.

D. WESTERN ROUTES (Nos. 17–39)

The presence of the goals of pilgrimage in the western hinterland causes tracks to converge upon it from all quarters. It alone among Arabian districts can be reached by railway (see *Hejaz Railway*, Route No. 17) from the outside world, and except for the settled districts of the south-west and south-east of the Peninsula, it alone has roads defended by any effective system of blockhouses.

The points towards which all main tracks are directed are Medina and Mecca, but account must be taken also of some routes which make inland from the coast to the Hejaz Railway north of Medina, and of coastal linking routes to Yambo‘ and Jiddah. The tracks come from the centre (Hā’il, Qasīm, or Riyādh); from the north (Syria and Egypt); from the west coast and from the south (Asir and Yemen). None of these reaches Mecca or Medina without crossing some desert and more steppe, and, except between Jiddah and Mecca, and along the coast line, all encounter hilly country and some difficult mountain passes. It should be noted that the routes from the Centre are here reversed in accordance with the plan of the Handbook. In general, the western routes are among the least safe in Arabia from nomad attack.

(i) The Hejaz Railway and North-Western Routes

The Hejaz Railway, which is described from **Ma'an** to **Medina** as **Route No. 17**, is a single-line track with a gauge throughout of 1.05 metres (3 ft. 5.34 in.), and is not provided with sufficient sidings. The southern portion of the line is laid with steel sleepers in place of wood, and the ballast employed is a firm mixture of broken stone, lava, and basalt; but in several sections it has been laid in insufficient quantities and derailments are not infrequent. The head offices are at Qadam station, Damascus; there, too, are the principal construction and repairing shops, the works being provided with modern lathes, drilling, planing, and shaping machines driven by electric dynamos. No Christian, even though employed on the running staff of the trains, is allowed farther south than Medā'in Sālih.

Rolling Stock. The line is indifferently provided with rolling stock. A total of nearly 100 engines, of which about 30 were tank engines, and 70 were capable of long runs, have been delivered to the order of the Hejaz Railway directorate at various times in the last twelve years. At one time or another the directors dismissed all their European engineers and mechanics. In consequence, at the beginning of 1914, there were said to be only about 15 engines fit for service, and even the soundest of these were rapidly approaching the scrap heap. After the outbreak of war, however, German engineers were introduced, and these seem to have repaired some of the old engines; but, generally speaking, the Hejaz stock, though of good quality, has suffered so much by misuse, that its running efficiency is low: and unless replacement of tubes damaged by the mineral character of the desert water can be arranged from Germany, the best of management will not prevent breakdowns. The more powerful engines included eight big Krauss and four Henschel engines, but the water and fuel consumption of these make them not economic on the line S. of Ma'an. Details of these, and of others from whose classes there are probably still survivors on the line, are given in the tables on p. 38 f., which also give the numbers, &c., of passenger coaches, box-wagons, trucks, and tank-wagons.

It is reasonable to suppose that, during the war, the rolling stock available from the Hejaz line has been pooled with the cheap, but efficiently maintained, stock of the narrow gauge of the D.H.P. Company (*Société Ottomane du Chemin de Fer de Damas-Hama et Prolongements*). This will increase the stock by about 15 engines, 51 passenger coaches, 7 passenger brake-vans, 240 box wagons (10 tons), and 100 15-ton wagons.

(i) LOCOMOTIVES

<i>Makes.</i>	<i>No.</i>	<i>Weight (empty)</i>	<i>Speed.</i>	<i>Pres- sure.</i>	<i>Tubes (inner diam.).</i>	<i>Driving- wheel diam.</i>
		tons.	km.	atmos.	c.m.	m.
4-coupled. Krauss . .	8	42½	35	12	4·5	1·04
4-coupled. Hartmann . .	22	40½	50	12	4·5	1·07
4-coupled. Jung . .	12	42½	35	12	4·5	1·04
4-coupled. Duplex Henschel . .	4	47	45	12	4·5	1·103
4-coupled. Winterthur . .	10	39½	50	12	4·5	1·07

(ii) PASSENGER COACHES

3rd class	65
1st, 2nd, and mixed	34
Passenger brake-vans	36

(iii) GOODS

(A) *Box-wagons. All four-wheeled*

<i>Maker or type.</i>	<i>Quan- tity.</i>	<i>Tare.</i>	<i>Load.</i>	<i>Journals.</i>
		tons.	tons.	c.m.
Haine St. Pierre	7	9·0	15	8·5
Haine St. Pierre	24	8·7	15	8·5
Roeulx	10	9·1	15	8·5
Gotha	12	9·2	15	8·5
Baume et Marpent	75	8·9	15	8·0
Gotha	50	9·4	15	8·5
Ammendorf	25	9·5	15	8·5
Haine St. Pierre	26	9·6	15	8·5
Haine St. Pierre	20	10·6	15	8·5
Roeulx	5	9·7	15	8·5
Gotha	8	10·6	15	8·5
Baume et Marpent	75	10·5	15	8·5
Gotha	50	10·5	15	8·5
Ammendorf	25	10·8	15	8·5

(B) *Trucks (Deep). All four-wheeled*

Haine St. Pierre	7	8·0	15	8·5
Roeulx	15	8·2	15	8·5
Haine St. Pierre	3	8·5	15	8·5
Haine St. Pierre	4	8·6	15	8·5
Haine St. Pierre	15	8·7	? 25	9·5
Gotha	9	8·4	? 25	9·5
Haine St. Pierre	9	8·7	? 25	9·5
Roeulx	50	9·8	? 25	9·5
Gotha	6	9·7	? 25	9·5

Tender capacity.

<i>Over-all length.</i>	<i>Weight (empty).</i>	<i>Water.</i>	<i>Coal.</i>	<i>Over-all length.</i>	<i>Makes.</i>
m.	tons.	cbm.	tons.	m.	
9-21	12	12	4	6-78	4-coupled. Krauss.
9-46	13	15-18	4-5	8-145	4-coupled. Hartmann.
9-27	12	18	4	8-88	4-coupled. Jung.
					4-coupled. Duplex
10-925	14-75	18	5	7-25	Henschel.
9-46	13	18	5	8-145	4-coupled. Winterthur.

<i>Contents.</i>	<i>Over-all Length.</i>	<i>Age, years.</i>	<i>Maker or type.</i>
m.	m.		
10 × 2 × 2-24	10-98	12	Haine St. Pierre.
9-2 × 2-05 × 2-3	10-18	10	Haine St. Pierre.
9-2 × 2-05 × 2-3	10-18	10	Roeulx.
10 × 2-05 × 2-258	11-0	8	Gotha.
10 × 2-05 × 2-158	11-0	6	Baume et Marpent.
10 × 2-05 × 2-025	11-0	4	Gotha.
10 × 2-05 × 2-315	11-0	3	Ammendorf.
9-2 × 2-05 × 2-3	10-18	12	Haine St. Pierre.
9-2 × 2-05 × 2-3	10-2	8	Haine St. Pierre.
9-2 × 2-05 × 2-3	10-18	10	Roeulx.
10 × 2-05 × 2-3	11-0	8	Gotha.
10 × 2-05 × 2-158	11-0	9	Baume et Marpent.
10 × 2-05 × 2-025	11-0	4	Gotha.
10 × 2-05 × 2-315	11-0	3	Ammendorf.
10 × 2-36 × 1-25	10-98	10	Haine St. Pierre.
10 × 2-36 × 1-25	10-98	10	Roeulx.
10 × 2-36 × 1-25	10-98	10	Haine St. Pierre.
10 × 2-35 × 1-25	10-98	10	Haine St. Pierre.
10 × 2-36 × 1-255	11-0	8	Haine St. Pierre.
10 × 2-42 × 1-25	11-0	8	Gotha.
9-4 × 2-36 × 1-255	11-0	8	Haine St. Pierre.
10 × 2-36 × 1-25	10-98	10	Roeulx.
9-4 × 2-42 × 1-25	11-0	8	Gotha.

(c) *Trucks. All four-wheeled*

<i>Maker or type.</i>	<i>Quantity.</i>	<i>Tare.</i>	<i>Load.</i>	<i>Journals.</i>
		tons.	tons.	c.m.
Baume et Marpent	76	7.5	15	8.0
Haine St. Pierre	81	7.4	15	8.5
Roeulx	25	7.5	15	8.5
Gotha	27	8.2	15	8.5
Haine St. Pierre	34	8.2	15	8.5
Haine St. Pierre	5	9.1	15	8.5
Haine St. Pierre	35	8.2	15	8.5
Roeulx	80	8.5	15	8.5

(d) *Tank-wagons*

<i>Maker.</i>	<i>Quantity</i>	<i>Tare.</i>	<i>Load.</i>	<i>Journals.</i>	<i>Length over-all.</i>	<i>Age, years.</i>
			tons.	c.m.	m.	
Baume et Marpent	44	10.9	15	8.5	10.98	13
Kelsterbach	1	10.37	15	8.5	10.35	13
Kelsterbach	1	10.87	16	8.5	10.35	13

The total stock will then be :

Locomotives (long run). Certainly 30, possibly about 50.

Passenger coaches. About 180, of all classes (reserved for officers).

Brake-wagons. About 40.

Box-wagons. About 700.

Trucks. About 600.

Tank-wagons. About 40.

This stock has to work the lines Rayak-Beirut, Rayak-Damascus-Der'a, Der'a-Beersheba, and Der'a-Medina. The precise amount of stock available for the Hejaz line will therefore depend on too many factors to be constant, or to be estimated with any accuracy. It has, however, been reported that the rolling stock was not too ample for the proper maintenance of the Sinai forces, before any unusual pressure on the Medina branch took place.

The working system was in blocks, brigaded as follows :

	<i>Km.</i>	
	<i>Inter.</i>	<i>Total.</i>
Damascus	0	0
Der'a	123	123
Ma'an	336	459
Tebük	233	692
Medā'in Sālih	263	955
Medina	350	1,305

<i>Contents.</i>	<i>Over-all Length.</i>	<i>Age, years.</i>	<i>Maker or type.</i>
m.	m.		
10×2·36×0·4	10·98	12	Baume et Marpent.
10×2·36×0·4	10·98	10	Haine St. Pierre.
10×2·36×0·39	10·98	10	Roeulx.
10×2·42×0·4	11·0	8	Gotha.
10×2·36×0·4	10·98	12	Haine St. Pierre.
10×2·36×0·4	10·98	10	Haine St. Pierre.
10×2·36×0·4	10·98	11	Haine St. Pierre.
10×2·36×0·39	10·98	10	Roeulx.

It was customary to change engines, and leave an intermediate at each of these points. A relay of drivers was carried. Therefore, on the peace system, to maintain a daily service of one train each way would need about 15 locomotives. However good the present management, it will be found hard to economize on the old figure, since, apart from the unreliability of the machines, there will be interruptions by Arab raids, which may even make running by night inadvisable.

The gauge being 1·05 m., the carrying capacity of the railway was never great. It is now working on wood-fuel, which has to be carried down from Damascus. A single train, during the 2,610 km. of the round trip, will burn nearly 50 tons of wood, which is a serious item in the gross load of the line. The average length of train was 13 trucks: the sidings are capable of 20, but even under present exigencies this limit is not likely to be reached, as the experience of the Syrian railways on wood-fuel seems to have compelled the management to run light trains. It has been customary sometimes in summer to take four tank-wagons on the train, for the machines and passengers, and to supply the waterless guard-posts and stations along the line. If the threat of Arab raids necessitates increasing these local garrisons and patrols, the net delivery of the line at Medina will be still further reduced.

Supplies. *Water* is obtainable at the stations, but at most it only suffices for the requirements of the railway; it is fairly abundant at Ma'ān, Dhāt el-Hajj, Tebūk, Qal'at el-Akhdhar, and El-'Ala. The most suitable places for rest camps would be Ma'ān, Tebūk, and El-'Ala; but *supplies* in any quantity are not available *en route*.

Route No. 18, from Akaba to Jauf via Ma'ān, is a portion of a supposed ancient trade route between Egypt and the Persian

Gulf. For practical purposes, the route may be divided into two main sections, the first between Akaba and Ma'ān, the station on the Hejaz Railway, the second between the latter place and Jauf el-'Amr.

In the first section camping-places are optional. A short first stage is often made at Abul-Heirah, not far from the well 'Ain Ma'in. A second stage may be made near the mouth of Wādi el-Mudheifein; in 1905 Turkish troops (see below) appear to have halted at Quweirah, where there is now a military post. Musil camped with Arabs to W. of the road, about 5 miles N. of this place. In the third stage, the route crosses the escarpment of Jebel Shera, close beyond which is the well 'Ain Fuweilah, where the third night may be passed. Three cross-tracks leaving the Wādi 'Arabah in the direction of Ma'ān probably intersect this part of the route. The most southerly, starting up the Wādi Dharbah, should come in not far from Quweirah. The two others ascend the Wādi Umweilah and the Wādi Gharandel respectively, the latter apparently passing through Delāghah and 'Ain el-Beidha. The second is reported fit for laden camels.

In the first section of the route there are no serious natural obstacles, though the heat in the rock-bound valley of Yitm may be almost unbearable in the middle of the day. The ascent from the mouth of Wādi Yitm to the summit of Naqb Shatār is not difficult; the way up the pass follows the windings of an old Roman road, which, if improved, would be possible for wheeled traffic; in 1905, some 15,000 Turkish troops were taken this way from Ma'ān to Akaba, a force presumably including artillery. Up to the foot of the pass the slopes are never very steep. On the far side of Shera, the ground falls gradually to Ma'ān. Throughout the whole section, the surface is generally hard, and the going fairly good; Musil covered the distance on horseback in about 23 hours. In the valley of Yitm, the track follows the line of the main Roman road from Akaba to the E. of the Dead Sea, few traces of which now remain. It would probably be easy to vary the route between Hemeimah and the Wādi Mureighah by keeping on in a N. direction along the Roman road as far as Ta'sān (about 11 miles), where there is a well, or even to Sadaqah (17 miles), and crossing Jebel Shera from these points. Since the beginning of the war, the Ottoman Government is said to have begun a survey for a line connecting Ma'ān with Akaba; it is to leave the Hejaz Railway at Qal'at el-Mudawwarah, about 70 miles S. of Ma'ān. The Arabs met with in the first section of the route are 'Amrān ('Imrān) and 'Alawīn, sub-tribes of the Huweitāt, whom both Doughty and Musil found friendly;

and the Ma'zi (Ma'āzah) and other sub-tribes of the 'Atiyah, who, according to Musil, are liable to raid the Hisma plain; the 'Atiyah and Huweitāt are, however, in close alliance (see Vol. I, p. 60).

As for the second section of the route, the country between Ma'ān and Weisit is, in the main, a level plateau over which the going is very good indeed; there are no physical difficulties, but hot winds (*simūms*) are prevalent during the summer months. At Weisit, the route joins the much frequented mercantile road from the Haurān to Jauf and Central Arabia, and follows the broad Wādi Sirhān, the bed of which is sandy in parts and gravelly in others. The track here winds considerably to avoid sand-hills, but it is otherwise comparatively easy.

Supplies. Over the first section, *food-supplies* for the whole distance must be carried from Akaba, though Musil received some hospitality from Bedouins on both sides of Jebel Shera, especially from the 'Alawīn on the slopes of Jebel Muweilah; Doughty was also entertained by these 'Alawīn, and noted their cultivation of barley on the Hisma plain. *Water* can be easily obtained in sufficient quantities for small parties; the wells mentioned in the route are never at such distances from one another as to necessitate the carrying of more than one day's supply, and there are said to be cisterns for rain-water at Abul Heirah, Quweirah, and Harābat el-'Abid; in the last place, the water is well protected, and Musil's map indicates permanent water. For large bodies of men, special arrangements for storing water would have to be made. For the Turkish expedition of 1905, 1,500 camels were provided by the Huweitāt sheikhs, and water was stored in barrels at Quweirah and Abul-Heirah. *Fodder* and *fuel* are scarce over the first section, though, on the evidence of photographs, there should be coarse camel-grazing in many parts. On the E. side of the Jebel Shera escarpment, grass pasture is reported by Musil in the hollows, but the country immediately W. of Ma'ān is desert.

In the second section, *water* is only obtainable between Ma'ān and Weisit, at Bā'ir, where it is excellent; beyond Weisit, along the Wādi Sirhān, possibly as far as Adhāra', wells are frequent, but the water is mostly brackish; the last 20 miles to Jauf are waterless. Sparse *fodder* is present when approaching Bā'ir, it is entirely absent between Bā'ir and Weisit, but is plentiful in Wādi Sirhān. *Fuel* is fairly plentiful throughout. No general *food-supplies* are procurable after Ma'ān until Jauf is reached, except such things as may possibly be obtained at temporary encampments of Bedouins in Wādi Sirhān.

Route No. 19, from **Akaba** to **Teima**, follows Route No. 18 as far as **Ma'ān**. After leaving the latter place it traverses a vast limestone plain, the going being very good to Hausa, where it crosses a prominent limestone mountain range. Then there is a hilly stage, and after that good going to Fajar, where the ground is much broken with sandstone outcrops; thenceforward the going is again good.

Supplies. For the section from **Akaba** to **Ma'ān**, see above, p. 43. On the rest of the route *water* is scanty except at **Ma'ān** and **Teima**; between **Mughairah** and **Teima** there is no water that can be depended upon. *Fuel* is scarce between **Hausa** and **Teima**, but elsewhere abundant. There is sufficient *grazing* for a small caravan to **Fajar**; after that fodder is very scarce till **Teima** is reached. General supplies are obtainable only at **Ma'ān** and **Teima**.

(ii) *Routes to the Centre*

These all pass in the main through fairly well-watered steppe country, which admits of détours from the direct line in all directions. Consequently different informants describe different routes between the same points in this region more often than anywhere else, their devious courses having been determined by the presence of camps here and there, and by the comparative security of the country, on one side or the other of the direct line, from **Hā'il** or **Ateibah** raiders.

From two intermediate stations on the **Hejaz Railway** routes of subsidiary importance lead to **Hā'il**. The more northerly of these is **Route No. 20**, from **Qal'at el-Mu'adhdham** to **Hā'il** via **Teima**, a camel-track which crosses a barren, stony desert with some outlying portions of the **Nefūd**. It encounters no physical obstacles, and in consequence presents a variety of alternative parallel tracks.

Supplies. *Water* is abundant at **Teima**, but elsewhere is scarce except at **Beidha Nethil**. *Fuel* is scarce, but the *camel-grazing* along the route suffices for small caravans.

The more southerly of the two routes, **Route No. 21**, leads from **Hadiyah** via **Kheibar** to **Hā'il**. On the second day after leaving the railway the **Harrah** of **Kheibar** is entered and going becomes very difficult, in spite of the numerous camel-tracks which cross the lava field. From **Kheibar** alternative tracks may be followed. The one followed by **Huber** in 1879 strikes **Route No. 23** at **Mustajiddah**.

The other, which was taken by Doughty, lies more to the N., and, after crossing the edge of the *harrah* in a north-easterly direction, strikes Route No. 20 at Beidha Nethil.

Supplies. *Water* is abundant at Kheibar and Beidha Nethil, and elsewhere is plentiful after rain; at any season the supply would probably suffice for small caravans. *Fuel* and *fodder* are not scarce, except in the *harrah*.

The most travelled tracks in this section, the routes of the Persian Pilgrimage between Hā'il and Medina and Mecca respectively, are the least known to us, simply because, as Shiah Pilgrim tracks, they are not favourable avenues for Christian travellers. That between Hā'il and Medina (**Route No. 22**, from **Medina** to **Hā'il**) was followed by Wallin in 1845; but, beyond recording that he traversed it in 85 hours' fast marching, he has left no account of his journey. Like all the routes to the Centre, it encounters its main physical difficulties in its earlier stages, when it crosses the high *harrah* country which lies east of Hejaz. It is subject to Harb raids. It was attempted unsuccessfully in autumn, 1904, by a Turkish force bound for Hā'il, which had to turn back after much suffering from lack of sufficient water in the wells and the opposition of the Harb. The only point near its line where a force could halt and recruit is the oasis of Kheibar, about 70 miles N. of Medina.

The direct road from **Mecca** to **Hā'il** (**Route No. 23**) has been seen by no European south of Mustajiddah (near to which point Doughty wandered in 1877), with the exception of a small section in the southern part traversed by Burton on his route from Medina to Mecca; and, as of Route No. 22, nothing more can be said of it in particular than appears in the description on p. 152 ff. It also is much raided by the Harb. Doughty says of it (ii. 52): 'From Hayil to Mecca are five hundred miles at least, over vast deserts, which they pass in fifteen long marches, not all years journeying by the same landmarks, but according to that which is reported of the waterings (which are wells of the Aarab), and of the peace or dangers of the wilderness before them. Ibn Rashid's Haj have been known to go near by Kheybar, but they commonly hold a course from Mustajidda or the great watering of Semîra, to pass east of the Harrat el-Kesshub, and from thence in other two days descend to the underlying Mecca country by Wady Laymân.' This would mean a détour somewhat to the east of a straight line drawn between Mecca and Hā'il.

The tracks to **Qasim** from Medina and Mecca are in only little better case. That from **Medina** to **Rass** (**Route No. 24**), though traversed by several Europeans during the Wahabite war of 1817-19, has not been described in detail by any one. It has been covered by considerable regular forces more than once—by the Egyptian army in 1817-19, and by four Turkish battalions under Sidki Pasha in late winter, 1905. The remnants of these last straggled back from **Qasim** a year later stripped of arms, accoutrements, and shoes.

The track from **Mecca** to **Qasim** (Aneizah, Boreidah), given as **Route No. 25**, is known from Doughty's and Huber's journeys only, on alternative lines for most of the distance, the main pilgrimage line remaining unseen. Since, however, it is a section of the great trans-Peninsular route, and the alternative lines are almost as much in use as the main pilgrim road, it merits more particular mention here. As followed in the reverse direction from Mecca, it is a single route as far as 'Asheirah, where the Darb es-Sultāni, the pilgrim road to Boreidah, diverges to the left. Farther on, at Umm el-Mashā'ib, the route forks once more, the two branches (the left Doughty's, the right Huber's) uniting again at Shabībīyah, near Aneizah. There are thus three alternatives for part of the way. They traverse for the most part lava fields and desert steppe sloping generally very slightly to the NE., at a mean altitude, till they reach **Qasim**, of about 4,000 ft. The Darb es-Sultāni is said to be well provided with water. Elsewhere watering-places are fairly numerous, but water is usually scanty and poor. There is not much, apparently, to choose in the matter of length: each of the first two appears to be just under 480 miles, and the third less than 20 miles longer. It is difficult to compare these routes: two of them have been adequately described by Huber and Doughty respectively; the Darb es-Sultāni seems not to be known by any European. This latter would appear to be the easiest of the three, having most permanent water and reaching inhabited places in the direction of **Qasim** sooner than do the others; on the other hand, both Doughty's and Huber's parties were caravans of traders, not explorers, and therefore must have followed the line of least resistance. Perhaps they avoided the pilgrim route because it traverses the country of the predatory Harb; but in so doing, they got into the country of the hardly less formidable Ateibah. With this tribe, however, the Sherif's safe-conduct is of more avail.

Supplies. On all this group of tracks, **Routes Nos. 22-5**, *food-*

stuffs, beyond an occasional animal for slaughter, are unprocurable *en route*; and only in spring would there be any *forage* except for camels. *Fuel*, however, of the scrub kind is fairly abundant. *Water*, as has been said, is usually sufficient and sweet.

Of **Route No. 26**, from **Mecca** to **Riyādh**, which coincides with the above for 300 miles, and again coincides with Route No. 15 in the last stages, no more need be said except that it is the Wahabite pilgrimage road and that its intermediate stages have been travelled by no European. They seem, however, to present no difficulties, fairly large and well-supplied settlements occurring all along the line through Woshm.

(iii) *Linking Routes between Medina and Mecca*

These are pilgrimage roads; they are four in number, and known as the Darb es-Sultāni, the Darb esh-Sharqi, the Wādi el-Qura route, and the Tariq el-Ghabīr. The two first are described in detail in the following chapter. The Wādi el-Qura track is a favourite with dromedary caravans; on this road are two or three small settlements and regular wells, and there is free passage through the territory of the Beni 'Amr. The Tariq el-Ghabīr, a mountain path, is avoided by the great caravans on account of its rugged passes; water is plentiful along the whole line, but there is not a single village, and it is liable to raids by the Subh, a Bedouin sub-tribe of the Harb. It should be remembered that not infrequently all roads between Medina and Mecca are closed by the action of the Harb tribe.

Route No. 27 is the only one of the above routes protected at all points by block-houses and supplied with road-side markets and coffee-shops. It traverses rugged hill-country from Bir 'Ali to Hamra and beyond, but for the rest, it lies in the main in thin sandy waste until Wādi Fātimah is reached.

Supplies. Only on this, of the four routes specified, can *food-stuffs* be obtained in any quantity and, even here, not in abundance, the *sūqs* of Hamra, Safrah, Rābugh, and Khalis being very small and poorly supplied. Honey is a special commodity of Safrah, and bananas, from the plantations of Wādi Khuwār, at Khalis. *Forage* is fairly plentiful in spring throughout the route, and *fuel* can be gathered from the bush-vegetation which is abundant. *Water* presents no difficulties.

As it is often advisable to avoid the range of this or that clan of the Harb, who hold the country along at least two-thirds of the preceding route, it follows that, between Medina and Rābugh, the same line is not always followed. There are several alternative tracks, of which the three most important are described schematically under **Route No. 28**; they all traverse more or less hilly country. A fourth, the Ghair Route, described in the Indian Government Road Book, is so obviously erroneous that it is not included here.

Supplies. All the alternatives appear to be well supplied with *water*, and fairly so with *fodder* and *fuel*. As to *foodstuffs* available, there is little information; but they are probably not obtainable in any quantities, except perhaps at such settlements as Khalis and Beder, which have small bazaars.

On or near the line of the Darb esh-Sharqi or inland track (**Route No. 29**) runs the projected extension of the Hejaz Railway, whose construction the Harb tribesmen, abetted by the Grand Sherif, successfully frustrated. The Darb esh-Sharqi is a dangerous as well as a difficult route and appears to be but seldom used now for fear of the restless Harb and Ateibah tribes. From Medina to Suweirqīyah the track follows the low beds of sandy wādīs; from that point to Dharibah it crosses a succession of basins or depressions (known as *ghadīr*, pl. *ghudrān*), in which water stagnates, the basins being separated by ridges or flats of basalt and greenstone averaging from 100 to 200 ft. in height. Beyond Dharibah, the track enters a region of water-courses or *fumaras*, generally deep and narrow in character, tending W. and SW. The region traversed is intermittently volcanic and exceptionally barren, but rich in primary formations such as basalt, hornblende, greenstone, diorite, and pink and grey granites. Burton says: 'The landward (eastern) faces of the hills are disposed at a sloping angle, contrasting strongly with the perpendicularity of their seaward slopes.'

Supplies. *Foodstuffs* are not obtainable *en route*, except perhaps at the stages of Suweirqīyah and Sufeinah, which have small but fairly well-supplied bazaars, and in Wādi Leimūn and the stage beyond; at one or two other points also dates and grain are cultivated. Wells are few, and *water* (obtained mainly by digging) is good when rain is fresh in the wādīs, saltish in the plains, and bitter in the nitrous basins and depressions. *Forage* and *fuel* are very abundant in some stages of this route (the former only in spring); in other stages they are entirely absent, as noted under the route.

(iv) *Routes in North Hejaz*

These are cross-routes running from the ports of Yambo', Wejh, and Muweilah to points on the Hejaz Railway. The only authority for the route from **Muweilah to Tebūk (Route No. 30)** is Wallin, who traversed it from the coast in 1847. It is a camel-track, and caravans usually take four days for the journey. In climbing the coastal range the ravines are steep and rugged, but the descent on the east of the watershed is gentle; there are no recognized halting-places.

Supplies. *Water, fuel, and fodder* are abundant at Muweilah, and are apparently obtainable along the route.

Of the two alternative tracks from **Wejh to El-'Ala**, which are given in **Route No. 31** from reports by officers of the Egyptian army, the southern and shorter route is mentioned by Doughty as the one used by the rice and date carrying caravans. It is a route for camel transport, and was followed by the Egyptian Hajj in 1909-10 on the down journey; it goes through mountainous country, as it crosses the Hejaz coastal range. The northern and longer route, which is there given as the first alternative, passes over similar country: it was followed by the Egyptian Hajj in 1909-10 on the up journey. The route given as a second alternative is that followed by Euting, in 1884, in the reverse direction. In the Wādi el-Hamm, one day's march from El-'Ala, he was attacked by a party of Juheinah, but succeeded in reaching a camp of the Billi under whose protection he was travelling. He waited with them two days and then resumed his journey, joining another caravan at the point he had left the route. Euting did the journey from El-'Ala to Wejh in just under five days' actual marching, but he gives no detailed times and few indications of direction.

Supplies. Springs yielding a tepid and brackish *water* are reported to occur along the whole of this coast at a slight depth below the surface of the ground, but the presence of water along the actual route is uncertain; along the first alternative track there are wells at Kazaz and Beidha, and along the second alternative track Euting reports water at Dhureib, Meleihah, and in the Wādi esh-Shillul. *Fuel and fodder* are scarce and other supplies non-existent.

The route from **Wejh to Medina (Route No. 32)** has not been travelled by any European, and in the following chapter it is only possible to describe it schematically; no details are available as to supplies along the route.

The southernmost of this group of routes is the best known, that from **Yambo'** to **Medina (Route No. 33)**. It is much travelled, since, owing to their insecurity, the direct tracks between Mecca and Medina are more shunned than used, and pilgrims arriving by the Hejaz Railway often prefer, and sometimes are obliged, to go down to Yambo' and continue their journey by sea to Jiddah. Similarly, after the Mecca visit, many who wish to see Medina also, reverse this process rather than risk a caravan journey between the towns. But even the Yambo'–Medina road is very far from safe, as well as ill-watered and arduous, owing to the broken, mountainous character of the country in the last half of it. For these reasons also there are many local variations in the line followed. The track most frequently used seems to be that by way of Safrah and Hamra.

Supplies. In the first part of the journey *water* is abundant only after the spring rains; there are good springs and streams throughout the mountainous section. Some *fuel* and *fodder* are obtainable along the route, but other supplies, in any quantity, only at Yambo' and Medina.

(v) *Coast Routes in Hejaz*

The Egyptian Hajj route, from **Akaba** to **Mecca**, is described as **Route No. 34**. It is a well-defined track along the coastal plain and keeps generally near the sea. Along the whole of its course it presents no difficulties for laden camels. Between Hanak and Hura the Hajj caravan has on several occasions been attacked by the Juheinah, while in the neighbourhood of Rābugh the Harb tribesmen render it far from secure.

Supplies. *Water* is obtainable at most stages, but there is none between Wejh and Hura. *Fuel* and *fodder* apparently suffice in most places for the Hajj caravans. Vegetables, dates, and sometimes other fruits are obtainable at certain points, but general supplies only at Yambo' and Mecca.

The coastal route from **Jiddah** to **Yambo'**, which, with an alternative track between Jiddah and Rābugh, is given schematically in the following chapter as **Route No. 35**, crosses the sandy Tihāmah, and here and there the going is very bad even for camels. The journey is usually made by sea.

Supplies. *Water* is plentiful at some stages, but is of poor quality; *fuel* and *fodder* are found along the route in sufficient quantities for small caravans; other supplies are obtainable only at Jiddah and Yambo'.

(vi) Routes in South Hejaz

Two routes are described schematically which start from Jiddah. Of these, **Route No. 36** to N. Yemen (from **Jiddah** to **Hodeidah**) is very ill-known, and has been traversed by no European; a considerable portion of the first part of it, as far as Qunfudah, was traversed by the Sherif's forces in 1911. It is not much in use, owing to the heat and barrenness of the tracts through which it passes and the predatory uncontrolled character of the North Asir tribes. At present it is cut by Idrisi, who controls it in the Abu 'Arish district. It lies wholly in the coastal plain known as the Tihāmah and runs mostly along the shore, following the telegraph line as far as Loheia. (From that point the telegraph continues to keep near the coast, while the route turns inland.) The track lies over sand, and is suitable for camels only; the going is very heavy in places, but there are no other physical difficulties. The section from Loheia to Hodeidah is constantly used by Turkish troops and convoys; it is an easy route, across open desert country for most of the way.

Supplies. *Water* is apparently limited over a great part of the route; except for the meagre details given for a few of the stages, no information is available; between Loheia and Hodeidah the supply is reported to be sufficient and good. *Fodder* and other supplies would be very limited, even for a small caravan. *Meat* can be obtained at Jiddah, and, by waiting a few days, at Qunfudah.

Route No. 37, on the other hand, which runs from **Jiddah** to **Mecca**, is the most travelled track in Arabia, protected by block-houses at intervals, and well supplied with halt-stations. The first few miles are over sandy plain, after which the track passes through a range of low hills to the plain of Bahrah. Thence it leads over dusty undulating country to the main range of West Arabia, in a foothill valley of which, running NE. into the range, lies the Holy City at a mean altitude of not more than 700 ft. A carriage could pass with difficulty over this track, and continue by the more northerly (Seil) route to Tā'if (64 miles as the crow flies, but well over 100 by this route; see Route No. 38, alternative); but it is not the practice to use carriages on the Jiddah road, although guns have often been wheeled over it. Mecca donkeys are the best riding animals for this road (see above, p. 16). The road is unmetalled and not embanked, but it has been worn to a very fair surface, and is not interrupted by any natural obstacles.

The direct road from **Mecca** to **Tā'if** is described as **Route No. 38**. The first part of it conducts the annual pilgrimage to 'Arafāt, and forms a well-beaten track, paved for a short distance in the neighbourhood of Mina (Muna). At about mid-way, the route meets the great natural barrier of **Jebel Qōra**, the ascent of which cannot be made by camels, loads being transported to the summit by mules and asses. Beyond, it offers no physical difficulties and is a descending track most of the way. The **Seil** route to **Tā'if**, referred to above and given briefly in the following chapter as an alternative, is much longer, but practicable for camels throughout.

Supplies. *Water* is abundant throughout the direct road and exceptionally good along some of the stages; *fodder* and *fuel* may be obtained; other supplies (with the exception of fruits and such small commodities as may be found at coffee-shops) are only to be had at **Mecca** and **Tā'if**. As to supplies along the alternative, little information is available, though *water* and *fodder* appear to be plentiful along the first half of the route at least; but of general supplies there are none.

Of tracks connecting **Hejaz** with **Yemen**, that along the coast has been dealt with already (see **Route No. 36**). Two others, inland, are more travelled when the Ottoman Power is sufficiently strong to secure passage through **Asir**. Of these, one route, starting from **Tā'if**, follows the **Hajj** caravan road from **Mecca** to **San'ā**; the section between **Tā'if** and **Ibha** is described under **Route No. 44**, while that between **Ibha** and **San'ā**, via **Ibal**, is described under **Route No. 59**. It has not yet been traversed by any European except from **Khamir** to **San'ā**, and appears to lie largely through mountainous country in the southern section, and through hilly desert country farther north, but it is practicable all the way for camels and donkeys. The other, and more northerly inland route, also starting from **Tā'if**, runs to **Bishah**, from which point it follows the track of **Route No. 59** to **San'ā**. Its first section, from **Tā'if** to **Bishah**, is here described under alternative forms as **Route No. 39**; the first alternative is apparently an easy caravan route, since it was traversed by the **Sherif's** force in 1911, and the second alternative by a force of 12,000 men in 1834.

Supplies. *Water* is fairly plentiful throughout, except in the section between **Liyah** and **Bisal**, which, according to **Tamisier**, is waterless; *forage* appears to be ample around many of the halting-places, and there is much *fuel* throughout; *grazing* is good, as there is a large pastoral population; *supplies* of cereals and dates are obtainable at **Turabah**, **Aqiq**, and **Thaniyah** in particular, besides at **Tā'if** and **Bishah**.

E. SOUTH-WESTERN ROUTES (Nos. 40-66)

(i) *Routes in Asir*

These routes (Nos. 40-54) have been compiled entirely from native information, and therefore can only be expected to locate approximately the places referred to. Travelling in Asir is apt to be a dangerous matter, not through any natural causes, but on account of the uncontrolled and predatory character of the tribes. Natives, therefore, generally attach themselves to some armed caravan before venturing outside their own boundaries. The Turks in Asir have, for some time past, been restricted to the use of the road down Wādi Tayyah from Ibha (Ebha) to Muhā'il (Route No. 45), and to the Sikkat el-Barak, or Tariq es-Sultāni, from Muhā'il on to Qunfudah (Route No. 49).

With two exceptions the routes here given start from Ibha or Muhā'il. Nos. 40-47 radiate from Ibha, beginning with the track leading SSW. to Darb on the main Tihāmah road; the remaining seven routes are arranged in order round the circle, concluding with that to Wahlah, which also lies on the Tihāmah road to the NE. of Darb. **Route No. 40**, from **Ibha** to **Darb**, known as the Darb Beni Shi'bah, is not much used, being rough and precipitous in parts and infested by hostile Arabs. It has, however, a certain strategical importance, as part of an alternative route between Sabia (Sabiyah) and Ibha. The direct track from **Ibha** to **Sabia** is given as **Route No. 41**. The main inland road from the Yemen to the Hejaz is described in **Routes No. 42 (Ibha to Dahrān)** and **No. 44 (Ibha to Tā'if)**. It lies for the most part through elevated hilly country, and is practicable both for donkeys and camels. The **Ibha to Bishah** road (**Route No. 43**) sees considerable traffic during the date season. It is only traversed by large and well-armed caravans on account of the robber bands of nomads *en route*. The caravans, as a rule, are formed at Khamīs Musheit, and travel under the escort of the Shahrān tribe. The road is fairly level, and passes over a sterile and undulating country intersected by several fertile valleys. The variant of the route represents the line taken by the Sherif's forces in 1911.

Route No. 45, from **Ibha** to **Muhā'il** via Wādi Tayyah, though used by the Turks, is avoided by travellers and merchants, because neither water nor supplies can be procured for more than half the distance, and because the Wādi Tayyah is infested with robbers. The route coincides with the main pilgrim route to Mecca as far as Jebel Sha'r, and then plunges abruptly down the pass of 'Aqabah

Sha'r till the Wādi Tayyah is reached. The Turks have improved the old road down the pass, and rendered it practicable for heavy loads. Ordinary travellers prefer the route from **Muhā'il** via Sheibein, which is given as **Route No. 46**; though closed to the Turks for several years, this route is much used by caravans. **Route No. 47**, from **Ibha** to **Wahlah**, is the merchant or ordinary route from Ibha to the district of Mikhlāf el-Yemen, although much longer than the Darb Beni Shi'bah (Route No. 40). It is the most important trade route from southern inland Asir to the coast and runs down the Wādi Rim, which lies about half way between Wasm and Shuqaiq (see Route No. 53). It taps the fertile Rijāl el-M'a country, and links up with all the main roads of the interior; supplies and water are plentiful.

The routes radiating from **Muhā'il** (Nos. 48-52), with the exception of that to **Tanūmah** (**Route No. 48**), lead to points on the coast, here taken in order from N. to S. **Routes Nos. 49** and **50** are alternative tracks from **Muhā'il** to **Qunfudah**, the one known as the Tariq es-Sultāni or the Sikkat el-Barak, the other as the Sikkat el-Helāwiyah. **Route No. 51**, from **Muhā'il** to **Hali Point**, which is known as the Sikkat esh-Sherāf, has not been used for years by the Turks; merchants and travellers pass along it, but it is infested by robber bands in Wādi Dofa'. **Route No. 52** runs from **Muhā'il** to **Birk**, a fair-sized village on the Tihāmah-road between Hali Point and Wasm.

Of the two remaining tracks described in this section **Route No. 53**, the coast-road of Asir, is the main maritime route from **Lith** to **Wādi 'Ain** and **Loheia**. In its first stages it passes through the dangerous zone of the Dhawi Hasan and Dhawi Barakāt clans, and although both water and supplies are to be found in their villages, caravans have perforce to be self-sufficing. Further on the inhabitants are more hospitable, and the country is richer, and when the district of Mikhlāf el-Yemen, which is directly administered by the Idrīsi, is entered, travelling becomes an easy matter. The road keeps close to the coast from **Lith** to **Umm el-Khishib** (or **Khashab**) and then turns inland. It lies over sand, and is suitable for camels only; the going is very heavy in places, but there are no other physical difficulties. The heat, however, is intense. Alternative routes are given, from **Lith** to **Loheia**, and from **Umm el-Khishib** to **Loheia**. The last of the Asir roads, **Route No. 54**, connects **Tanūmah** and **Barak**; it descends the long steep pass of 'Aqabah Sajein, and terminates in the district of Barak at **Sūq el-A'jamah**, a local trading centre of some importance.

Supplies. On all this group of tracks, **Routes Nos. 40-54**, villages are encountered at frequent intervals, and, except on Route No. 45,

there is no difficulty about supplies of water at any point in Asir. The villagers are, for the most part, friendly to strangers passing through on pilgrimage.

(ii) *Routes in Yemen*

Of those from the coast to the Central Highlands, the road from **Hodeidah** to **San'ā** (**Route No. 55**) is by far the most important, in the present political state of Yemen. It is the only made road of any considerable length in Arabia. It divides itself roughly into a desert and a mountainous section; in the former, across the Tihāmah, there is often very heavy going, and the latter involves difficult and trying ascents and descents. In 1913 the state of the road was reported to be 'bad on the mountain' stages and 'indifferent everywhere', but the revetments and culverts were generally in good order. The Turks have often marched large forces and transported guns (including heavy howitzers) over this road, e.g. in 1911. It can only be used for ordinary wheeled traffic on the last stage between Bo'ān and San'ā, where even motors could pass. The mails are usually carried by mules. There is a telegraph, with offices at most of the principal stages.

Supplies. *Water* is plentiful and good throughout, but in the desert stages some of the wells are brackish. Other supplies, such as *fodder* and *grain*, are plentiful and readily procurable.

The only other road from the coast sufficiently in use to be worth description is that from **Mocha** to **Ta'izz** (**Route No. 56**). At Ta'izz it joins the longitudinal road along the axis of the Highlands which is described under Route No. 62. Two-thirds of it lie across the flat and sterile Tihāmah plain; the remainder is a difficult ascent to Ta'izz, but practicable for transport animals. The road crosses and recrosses the Mocha-Ta'izz telegraph line all the way.

Supplies. *Water* is sufficient at all seasons. After rain it is abundant beyond the first stage, but even then the mountain torrents become lost in the Tihāmah, and but little water reaches the coast. *Fodder* is very limited in the first stage, but plentiful thereafter. Small quantities of *foodstuffs* (cereals and vegetables, cattle, sheep and goats, milk and eggs, and some poultry) are obtainable when the mountains are reached.

A track from **Hodeidah** to **Mocha** (**Route No. 57**) joins up the starting-points of the two routes just described. It is, however, little

travelled nowadays owing to the insecurity produced on its northern stages by the recalcitrant Zaranik (Dharāniq) tribesmen. Comparatively few details are available about it. It traverses or skirts the Tihāmah plain throughout, and lies across barren desert nearly all the way. The actual track is not infrequently lost to view on account of shifting sand-drifts, and wide detours have sometimes to be made in consequence. Some parts are exceedingly heavy going.

Supplies. There is, in general, a sufficient supply of *water* from wells, but it is neither plentiful nor very good. *Fodder* is scarce, and other supplies, except at Beit el-Faḡih and Zebīd, are practically unobtainable.

The track from **San'ā** to **Riyādh** in South Nejd, which is given as **Route No. 58**, depends in great measure on native report, and distances and details in connexion with it must be accepted with all reserve. It is said to be a regular caravan track. The Yemen section of the route is mountainous, and, after leaving the plateau about Makhlāf (or Mikhlāf) el-Nejrān, it is a purely desert route through some of the least known parts of Arabia. The journey would be a severe one in both the mountainous and the desert sections, and suitable for the most part for dhelūl (female camel) riders only.

Supplies. From San'ā to Makhlāf, *water* and *fodder* are plentiful, or easily obtainable from the districts in the neighbourhood; but, beyond, they would probably be scarce (even very scarce in parts) as far as Badi'.

An alternative track from **San'ā** to **Tamrah**, by way of Sa'dah and Ibal, is given as **Route No. 59**. It is a portion of the Hajj caravan road from Yemen, and has not been traversed, beyond Khamir (52 miles), by any European. To Bishah, the route lies mostly in the mountainous districts of Yemen and Asir, but is said to be practicable for camels and donkeys; beyond Bishah, the country becomes undulating and easier, though more sandy, and the track leads down broad wādis to Tamrah.

Supplies. *Water* is certainly plentiful to Khamir, and is presumably sufficient for the Hajj caravans to Ibal, and probably also as far as Bishah. As to *fodder* and general *supplies* in this section, both are ample as long as the track continues in Yemen country; beyond, no definite information is available. In the fertile oases of Bishah itself, supplies of all kinds are plentiful; but after that point, except at Dām (170 miles from Bishah) and

Tamrah (65 miles farther on), little, with the possible exception of camel-fodder, can be counted on. Brackish water is reported at one or two places along these stages.

(iii) *Routes in the Aden Protectorate*

A selection only of Aden routes is described in this handbook. It is sufficient to indicate the way to the more important social centres; but in so well populated and settled a district as South-Western Arabia many more cross-routes are in continual use. For fuller information the Military Report of the Aden Government, or the Indian Government's Road Book of Arabia, should be consulted.

(a) Of roads described in the following chapter three lead far into Yemen. **Route No. 60** (from **Aden** to **Mocha** via Sheikh Sa'id) is suited only to mounted parties, preferably camel sowars, or to convoys, on account of the distances between some of the wells. It is mostly heavy going over sandy desert, but offers no special difficulties to laden camels.

Supplies. *Water* is plentiful, but mostly brackish and suitable only for animals. There is good water from springs at one or two places. *Forage* is scanty along the actual route, but *foodstuffs* can be obtained, at some points, from the fertile districts inland, except along the Sheikh Sa'id-Mocha section. There is sufficient grazing for camels, as a rule.

Route No. 61 is the trunk road from **Aden** up to the Yemen Highlands and along their axis to **San'ā**. From Aden to Musemir (Mus'aimir) it runs through open and fairly level country, with heavy sand in parts, till the mountains are entered; wheeled artillery and camel-carts can be taken as far as Nūbat Dakīm. From Musemir to Qa'tabah it ascends through hilly country, and is difficult and liable to interruption by floods in Wādi Tiban. From Qa'tabah to Yerim it lies through wild broken country, with sudden steep ascents and descents, and generally is bad going; it is suitable in the greater part for mules only. Harris describes this section of the route as 'of the greatest difficulty'; he adds that through 'wild broken country, road grows rougher as it proceeds'. From Yerim to San'ā there is a succession of high plains divided by rough but not very elevated ridges. The going in this stage is good on the whole, but with some difficult ascents and descents. The last stage, after Wa'lān, is quite easy.

Supplies. *Water* is plentiful throughout, except perhaps in some parts between Qa'tabah and Yerim; *fodder* and *foodstuffs* are easily obtainable, except in some stages of the same section.

Route No. 62, from **Aden** to **Yerim**, is suitable as far as Ta'izz for all arms except wheeled artillery. It is a fairly easy and safe road, with no serious obstacles to transport except in time of flood. From Ta'izz to Yerim it is more difficult than in the preceding section, owing to the steep and tortuous ascents and descents encountered in places, but it offers no very great obstacles to transport animals.

Supplies. *Water* is good throughout, and there is a sufficiency in all seasons. *Fodder* is plentiful, or easily obtainable, at most stages; there is good *grazing* for camels all along the route; and *foodstuffs* (grain, cattle, chickens, eggs, &c.) are plentiful if notice is given beforehand.

(b) Of roads lying virtually altogether in the Protectorate, **Route No. 63**, which runs from **Aden** to **Qa'tabah** via Nūbat Dakim and Khoreibah, is the road that was regularly used by troops and convoys marching from Aden to the Dhāla plateau in 1903. Wheeled artillery and camel-carts were taken as far as Nūbat Dakim, but not without difficulty, owing to heavy sand in parts. It is suitable throughout for camels and mules, and lies at first through generally open level country; then mountains are entered and there is a long ascent, very difficult in parts, to the summit of the Khoreibah pass, with a fairly easy undulating descent onwards to Qa'tabah.

Supplies. *Water* is sufficient in all stages, but must be filtered at certain places; and, if troops are marching in considerable numbers, buckets, ropes, and tanks should be carried for drawing and storing. *Forage* is plentiful in the lowland stages, but must be arranged for beforehand; it is also obtainable in fair quantities at certain places in the mountain section.

Route No. 64 is a variant of the above, running from **Aden** to **Qa'tabah** by way of Dhāla. It is suitable for small mounted parties only, on account of the severe waterless march across the desert in the earlier stages, where only camel transport could pass; beyond that point mules may also be used.

Supplies. *Water* is plentiful, except in the second stage, where it must be carried. *Fodder* is plentiful or easily obtainable in the first stage, non-existent in the second, but after that point procurable in moderate quantities.

The other two routes described afford access to the easterly parts of the Protectorate. **Route No. 65**, from **Aden** to **Shūghrah** (Shuqrah), is part of the featureless coast route from Aden to Makalla, and is very hot and unhealthy in the hot season.

Supplies. *Water* is scanty, the wells being of very limited capacity and few and far between, and is mostly brackish. *Fodder* is plentiful in the cultivated tracts round Wādi Bana, and in places along the track there is a little grazing for camels.

Route No. 66, runs from **Shūghrah** to **Makalla** by way of Nisāb and Bālhāf. The first section as far as Nisāb, leading inland, is an exceedingly strenuous track, and may be divided broadly into three sections: (a) a winding ascent through rough country from the coast to the coastal upland of Jahein; (b) a track over very broken and mountainous country, difficult of access, across the Kaur Range and the rugged Dahr plateau; and (c) an awkward approach along confined stony wādis to Nisāb. From Nisāb the track turns again towards the coast, which is reached at Bālhāf, after passing through zones of similar country in the reverse order. From Bālhāf there is a cart-road to Makalla.

Supplies. *Water* must be carried for the first three stages and for the sixth stage, and the supply is very limited beyond Bālhāf; elsewhere it is abundant. *Fodder* is plentiful throughout, the camel grazing being especially excellent between Yeshbum and Bālhāf. *Fuel* is also abundant, the route traversing many well-wooded wādis. *Foodstuffs*, such as grain, dates, sheep, poultry and goats, can be secured in plenty at Nisāb and Yeshbum and at some of the intervening settlements; but at Bālhāf and along the coast there are practically no supplies. Honey, in considerable quantities, and locally grown tobacco are procurable at Yeshbum.

F. SOUTHERN ROUTES (Nos. 67-69)

It is not known what routes lead from the coast across the Great South Desert—nor even whether any such routes exist. If they do, they can be feasible only for very small, very well mounted, and very light parties at a season of the year when camels are in full milk. It is known, however, that caravans go up to southern Nejd from the south-east and south-west by rounding one flank or the other of the Desert.

It is, however, easy to penetrate from the coast as far as the fertile district of Wādi Hadhramaut; and two of the main tracks leading

thither are detailed in the following chapter. **Route No. 67**, which starts from **Makalla**, or alternatively from **Shiheir**, leads to **Terim** and **Qabr Hūd** by way of **Shibām** and **Seyyūn**. The road first traverses the narrow coastal plain and, after ascending the plateau by stages, reaches the heads of the group of tributary wādis, all of which lead, after abrupt difficult descents, northward into the main **Hadhramaut Wādi**. The route detailed here takes the course of the **Wādi el-'Aisār** and the **Wādi Dō'an** (or **Wādi Kesr**). It is possible for camel transport, but is difficult in places owing to the nature of the abrupt ascents and descents encountered, which make riding impossible.

Supplies. *Water* is brackish in the first stage, but elsewhere generally good and plentiful, with the possible exception of some parts of the third and fourth stages. *Fodder* is generally sufficient, but the supply at the third and fourth stages cannot be depended upon. General *supplies* are non-existent and, although livestock is often plentiful in the interior regions through which the route passes, the people are fanatical and refuse to sell to non-Moslems.

Route No. 68 is an alternative track from **Shiheir** to **Shibām**. It is suited mainly for camel transport, but is difficult in places owing to the hills; horses can, however, be taken all along it.

Supplies. *Water* is obtainable at each stage, but the quantity available at the second and fourth stages is doubtful. *Fodder* for camels may be procured, except along the second and third stages. General *supplies* are practically non-existent. Livestock is to be obtained except at the second and third stages, where it is only to be had if the Bedouin flocks happen to have found grazing.

Route No. 69, from **Makalla** to **Lashkharah**, which is the last described in this section, is a connecting-route between **Hadhramaut** and **Oman**, passing through **Dhofār** and along the south-east coast of the **Oman Sultanate**. Its length is nearly a thousand miles, it follows the coast-line, and passes through some extremely barren and desolate country, especially in its closing stages after leaving the **Dhofār** plain. It presents no physical obstacles and is not difficult for camel transport, while the first half from **Makalla** to **Murbāt** would be possible also for horses. The track runs on the top of the cliffs or along the beach, sometimes making a detour inland to avoid a patch of rough basalt or a stretch of soft sand. With the exception of the fertile plain of **Dhofār** the country traversed is bleak and barren; towards its close the track winds among low sand-hills. It rarely leaves the coast except where it

is possible to make a short cut by avoiding a promontory or headland, such as the Barr el-Hikmān after passing Mahōt.

Supplies. Between Makalla and Murbāt the supply of *water* would suffice for small caravans; at Raidah and Hāmi hot springs only are available, but water is good and abundant in the Dhofār plain and at Ghaidhah (1) and (2). Between Murbāt and Lashkharah it is scarce and brackish. *Fuel* and camel *grazing* are both fairly plentiful between Makalla and Murbāt, the latter being especially good and abundant in the Dhofār plain; after leaving Murbāt they would probably be found in sufficient quantities for small caravans. General *supplies*, with the exception of fish, are very limited throughout. Between Makalla and Seihūt small quantities of vegetables and some cereals are obtainable, but from Seihūt onwards practically no supplies of grain can be relied on. As far as Murbāt a few cattle and sheep are to be found in the hamlets at certain points, but owners have been known to refuse to sell to non-Moslems. Between Murbāt and Lashkharah the Bedouin and semi-nomadic tribes, who frequent stretches of the coast, are extremely poor, and no supplies can be relied on.

G. SOUTH-EASTERN ROUTES (Nos. 70-75)

In the well-populated and, in the main, settled district of Oman, as in the Aden Protectorate, far more tracks are in constant use than are described in this handbook. For others, the Indian Government's Road Book of Arabia, or the Gazetteer of the Persian Gulf should be consulted. The selection here given is intended to link up the principal centres.

Route No. 70, from Sīr to Nizwa (and Adam) via Ibra and Manah, forms the principal line of communication from the coast of Eastern Hajar to Sharqiyah and Ja'lān. It crosses Eastern Hajar by the Wādi Fuleij (or Faleij), and traverses Sharqiyah westwards by the Wādi el-Hā'imah. The route is passable for pack transport except in the Wādi Fuleij after heavy rain, which is said to fall once in three years; the swollen and rapid streams then render the valley impassable for caravans. The branch route, from Kāmil to Lashkharah, traverses Ja'lān to the SE. coast.

Supplies. *Water, fuel, fodder, and livestock* are obtainable throughout, but are scanty at Ruksat; there are bazaars at Kāmil, Badiyah, Ibra, Manah, Nizwa, and Adam; many of the villages possess camels, donkeys, cattle, and sheep.

Route No. 71, from **Muscat** to **Bireimi** by way of Nizwa, 'Ibri, and Dhank, at first traverses Wādi Semā'il, the principal line of communication from the coast to the interior of Oman. After crossing the watershed it descends by Wādi Halfein to Izki, and passes below the base of Jebel Akhdhar to Nizwa. It crosses Jebel el-Kōr between Oman Proper and Dhāhirah, by the principal pass 'Aqabat el-Barak; and between 'Ibri and Dhank it traverses the pass of Jebel el-Fuleij (or Faleij), reaching Bireimi across the plain of NE. Dhāhirah. The route is possible for pack transport. The Wādi Semā'il usually contains a shallow stream flowing along a sandy bed, but it is liable to come down in flood after rain, rendering this section difficult; the valley is narrow, and is commanded in many places from the surrounding hills. The ascent of the pass 'Aqabat el-Barak, between Nizwa and 'Ibri, is possible for loaded camels, though fatiguing from the rugged character of the ground; the pass of Jebel el-Fuleij is also difficult by reason of its steep gradient and boulder-strewn track.

Supplies. *Water* from streams and conduits is abundant along the first part of the route; though not so plentiful between Nizwa and Bireimi, it is obtainable at all stages. *Fuel, fodder, and foodstuffs* are also plentiful along the greater part of the route; but they are not always obtainable from Tanūf to the further side of the pass 'Aqabat el-Barak.

Route No. 72, from **Muscat** to **Dhank** by way of Rostāq and Miskin, follows the coast-road to Masna'ah, and ascends thence by the Wādi Fara' to Rostāq; it traverses the foothills of the Western Hajar by Wādi Sahtan and Wādi Beni Ghāfir, and, after passing the watershed, crosses NE. Dhāhirah into the Wādi Dhank. There is a good camel-track along the coast from Matrah to Masna'ah, which is also traversed at the beginning of Route No. 73; from Masna'ah the route is also passable for pack transport, but between Rostāq and Dhank it is difficult in places owing to its hilly nature. An alternative and longer approach to Rostāq leaves the coast-road at Suweiq, to the W. of Masna'ah, and joins the route at Hazam.

Supplies. *Water, fuel, and fodder* are obtainable all along the route, and *foodstuffs* at Sīb, Barkah, Masna'ah, Suweiq, Rostāq, and Dhank.

Route No. 73, from **Muscat** to **Abu Dhabi** via Bireimi, follows the coast to Sohār; thence it turns westward and crosses the Oman Promontory to the Persian Gulf. From Muscat to Matrah is bad going and the journey is generally done by boat. From Matrah to

Sohār there is a good camel-track, but after heavy rain some of the wādīs that must be crossed are formidable ; when the route is near the sea caravans can pass along the beach where streams in flood are more easily crossed. From Sohār to Bireimi the track follows the Wādi el-Jizi, a shallow water-course between bare and sterile hills, and after passing the watershed it crosses a fairly level plain ; it offers no difficulties to transport animals. From Bireimi to Abu Dhabi the track lies across stretches of sandy desert, mostly dunes and undulating downs ; the only physical obstacle encountered is the tidal salt-water creek that must be crossed ten miles from Abu Dhabi.

Supplies. Along the coast, *water* is obtainable at all stages from wells at 15-20 ft. ; *fuel*, *fodder*, and *livestock* are available all along this section ; and supplies can be obtained from the bazaars at Sib, Barkah, Masna'ah and Sohār. *Water*, *fuel*, and *grazing* are abundant from Sohār to Bireimi. From Bireimi onward there are no villages nor settled inhabitants ; *water* of poor quality and in limited quantities is obtained from wells and water-holes, which are soon exhausted and take time to replenish ; *grazing* is very scarce during the summer months.

The other routes lie outside Oman proper but connect it with Hasa. **Route No. 74**, from **Hofūf** to **Ras el-Kheimah**, passes across the southern border of El-Qatar ; it traverses Trucial Oman to Bireimi by the route nearest the coast, which is that usually followed by caravans in summer, the line of the route more inland being given as an alternative ; from Bireimi it follows the main line of traffic northwards through the Oman Promontory to Ras el-Kheimah on the NW. coast. The route is practicable only for camel transport. It lies over fairly level desert, winding incessantly among sand-dunes and zig-zagging from well to well. There is no recognizable nor well-worn track, and no two caravans follow exactly the same course. When the track crosses sand-dunes it is obliterated as soon as made, and it is advisable for caravans to keep in close order.

Supplies. Over nearly four-fifths of the route, as far as Bireimi, *water* is neither good nor abundant. There are some long stages without water, including three double-stages ; but it does not seem to be necessary on any portion of the route to carry more than three days' supply. From Bireimi northwards *water* is plentiful during the winter months, except at Ras el-Kheimah, where it is always scarce and indifferent. During the summer months there is a general scarcity of *water*. For the first 125 miles *grazing* is abundant after rain, but not plentiful from that point to Bireimi ; from Bireimi northwards it is plentiful during the winter months. *Fuel* from

stunted brushwood is obtainable at most stages along the route, and is plentiful after Bireimi. *Foodstuffs* are only obtainable at Hofuf and Bireimi; at Ras el-Kheimah dates, fish, and livestock are the only available supplies.

Route No. 75, from Dohah to Hofuf, is a caravan track almost entirely over uninhabited desert country, which, in the Qatar peninsula, frequently has a hard firm surface. The Jāfūrah desert, entered after Ba'aïj, is a desolate tract of red sand. Alternative tracks are given for the section of the route from Ba'aïj to Jishshah.

Supplies. *Water* and *fodder* are scanty except during the last stage. No *foodstuffs* are obtainable before Hofuf.

CHAPTER III

ROUTES

N.B.—The references which follow the names of towns in the body of a route refer to descriptions in Vol. I of the Handbook; all other references are to the pages of the present volume.

A. NORTHERN ROUTES

ROUTE 1

JAUF EL-'AMR—JUBBAH—HĀ'IL

Authorities : Wallin, 1845 ; Guarmani, 1864 ; Blunt, 1878 ; Huber, 1880 ; Huber and Euting, 1883 ; Miss Gertrude Bell, 1914 (from Qena to Hā'il) ; compared with Palgrave, 1862.

Direction : SE. in general.

Distance : Crow-fly, 223 miles ; road, 271 miles.

Character and Supplies : see p. 24 f.

miles.

total. stages.

JAUF EL-'AMR, town ; see I, p. 387 f.

Dir. SE. across the basin of Jauf ; then road climbs sandy rim of *Jāl el-Jauf*, $\frac{3}{4}$ hr. from Jauf (Huber), on to plain which merges imperceptibly into the *Nefūd*.

Dir. then bears SSE.

30 30 *Shaqīq* (usual time, according to Wallin, from 12 to 14 hrs. ; Huber and Euting passed the well of Hazeima just over 12 hours from Jauf, and Kheneifez, another of the group, just over 13½ hours from Jauf), a depression of hard and saline soil, the western end of which the route crosses ; here are six or more well-built wells (Huber reports and names ten in the district), within range of 4 or 5 miles, 120–150 ft. in depth, forming large basins below, and having mouths a yard or more in diameter ; water sweet and excellent, and never failing totally throughout the year ; these are the only wells between Jauf and Jubbah, from 4 to 6 days' travel.

Dir. continues SSE., track keeping E. of Jebel Rāf, (passed after 2½ hrs.) with Jebel Tawīl beyond it, then crossing the great sand-dunes of *Falūh*,

miles.
total. stages.

covered with vegetation, and following track known as *El-Khall*, which can be pretty distinctly traced to Jubbah, but is in places swept away by moving sand; going is very difficult owing to nature of ground, which undulates in continual scarped hills and hollows (*fulūq* or *qu'ūr*), and is heavy on account of deep and loose sand.

50 m. 'Aleim en-Nefūd, two pyramidal rocks, about 270 yds. apart, jutting out of sand, the higher (on l.) some 300 ft. high; conspicuous landmark; alt. 3,220 ft. above sea-level.

Dir. S. by E., continuing to wind among *fulūq*, but here, according to Huber, somewhat easier to traverse; a high sand-mound, *Semeihah*, is passed and afterwards a deep depression with white limestone floor known as *El-Beidha*; in the latter well-borings but no water; general level of the *Nefūd* gradually rises to its highest elevation of 3,300 ft. Approaching Jubbah harder ground appears, and the *Nefūd* is temporarily left.

190 160 **Jubbah**, village now deserted (see I, p. 390), situated in extensive open plain or pan of elliptical form (10 m. by 12 m.), of hard stony soil, and backed by low hills, *Umm es-Selmān*, about 500 ft. above plain, and *Jebel 'Autah*. [Wallin apparently did the journey from Jauf to Jubbah in 86½ hrs. actual marching (18¾ hrs. to Shaqīq, 23½ hrs. to 'Aleim, and 44½ hrs. to Jubbah), but his rate was slow as his 'animals were very weak and meagre'; he gives 4½ days as the time usually taken for the route. Palgrave took at least 85 hrs., and Huber on his first journey (travelling about 2½ miles an hour) 76 hrs. Huber and Euting, who travelled more quickly, took 4 days and 1 hr. for the route, their actual marching (according to Huber's figures) working out at 59½ hrs. Euting's computation of 54 hrs. actual marching, like Guarmani's 49½ hrs. and Wetzstein's 52 hrs. (on native information), appear to underestimate the times required. The Blunts (on horses) took six days for the journey.]

miles.
total. stages.

- Dir. E. by S., keeping north of the Selmān (Sinmān) and Ghutah hills. Ghutah Hill passed in about three hours, when the *Nefūd* is re-entered.
- 242 52 Qena (*Qna*), small village (see I, p. 390), in plain of very white chalky ground; six deep wells of sweet and abundant water, separated by short distances, with hamlet around each; a few date-plantations and fruit gardens; some cereals cultivated, especially barley. [Wallin took 18 hrs. between Jubbah and Qena; Huber and Euting 15½ hrs. On his first journey Huber kept to the N. of Qena, making for a point below Umm el-Qulbān.]
- Dir. SE., bearing gradually to S. by E. as Hā'il is approached. At six miles the *Nefūd* ceases suddenly on a very sharp line of demarcation; perfectly flat ground, crossed with slender stratum of coarse granitic gravel, then entered; abundant camel-grazing.
- 9 m. Northern extremity of *Jebel Aja* chain, a well-marked mountain feature of northern Nejd, reached; route crosses open flat between *Jebel Aja* and the hill Umm el-Qulbān. Wells and springs abound in this district. [The route from this point to Hā'il via *Laqītah* and *Waqīd* (given below) was followed by Wallin. Huber on his first journey passed through *Laqītah* but does not mention *Waqīd*. Huber and Euting, and more recently Miss Bell, after rounding *Jebel Aja*, took a more direct route to Hā'il, keeping closer to *Jebel Aja*. Miss Bell's route from Qena to Hā'il works out at 28 miles; at 17½ miles from Qena (10½ miles from Hā'il) she notes *Qasr Laqītah* 1 mile to E., and, 2½ miles on, *Laqītah* village 3 miles to E.]
- 11 m. *Laqītah* (*Loqītah*), village; pop. about 120 families of Shammar origin. (This and the following places may perhaps be more exactly described as palm-settlements.)
- 3 m. *Waqīd*, small village of about 40 houses, with wells, water at 50 ft.; small date-groves.

miles.
total. stages.

In about two hours from village, route issues from foothills on to open plain, which extends along foot of *Jebel Aja*, on SE. side.

275 33 **HĀ'IL**, town; see I, pp. 384 ff.

ROUTE 2

JAUF EL-'AMR—BOREIDAH

Authority: Shakespear, 1914, compared with Nolde, 1892.

Distance: Crow-fly, 365 miles; road, 412 miles: the distances here given are Shakespear's.

Direction: General direction SE.

Character and Supplies: see p. 25 f.

miles.
total. stages.

JAUF EL-'AMR, town; see I, p. 387 f.

Dir. E. by S., out of the basin and up the *Jāl el-Jauf*.

[At 18 m. *Qārah*, a village of about 80 houses, with wells of fairly good water, lies some miles to N. of route. About 13 m. on, and closer to the route, lie the two deep wells of Howah (Hoa), with warm discoloured water of poor quality, near which, according to Nolde, is a 'small lake' with good rain-water. Neither of these places was visited by Shakespear, who took a more direct track, also passing at some distance from the saline depression of *Shaqiq*, which lies some miles to S., about 30 m. from Jauf, with 6 or more well-built wells, and abundant water at 120–150 ft. (See Route No. 1, p. 67.) Continue E. by S., in or along the *Khubūb Ayina*.]

48 m. Dir. changed to SE., still in or along the side of a continuous depression, or wādi, for two long days' march.

62 m. *Hazam el-Mai*, wells, 2 m. to N.

On for 15 m. on N. side of depression.

125 125 *Qasr el-Adhfa*, disused fort with towers at NW. and SE. angles, formerly protecting a well close to NW. corner, now partly filled in.

miles.
total. stages.

Dir. a little S. of E. along *Labbah* hollow.

12 m. Dir. changes to SE. and *Labbah* quitted.
Across *Nefūd*.

6 m. *Dikakah*, rolling downs.

12 m. *Khubb Khaweir* crossed, and *Nefūd* entered.

14 m. *Nefūd* quitted; route now over rolling
downs for many miles.

15 m. *Khubb Sahab* crossed. *Nefūd* again en-
tered.

11 m. *Nefūd* quitted. Route then descends 4 m.
to N. side of *Khubb Hayyāniyah*.

199 74 **Qasr Hayyāniyah**, fort in the *Khubb*; stone-built in lower
courses, mud walls above; towers at opposite
ends of a diagonal. According to Nolde, an
isolated tower, connected with the fort by an
underground passage, exposes to cross-fire the
wells which lie between. Shakespear mentions
only one well, and says nothing of the outer
tower; he states that the place is guarded by
half a dozen of the Emir of Hā'il's men, who are
changed once a year. The wells are walled with
masonry and very deep (140–170 metres; Nolde):
water good and abundant.

[At Hayyāniyah a route runs almost S. to Hā'il;
see Route No. 4, p. 81.]

Dir. SE.

10 m. *Khubb Hayyāniyah* quitted. Over sandy
ground, across plain named *Ajbilah* and again
over sand.

12 m. *Khubb Seilah*.

[Just before reaching *Khubb Seilah* the track is
crossed by Route No. 5, Nejef–Hāzil–Hā'il.]

Dir. changes to S. by E.

[Shakespear records 2 wells within the next 6 miles
and another 20 m. on, but, as in another place he
states that there is no water between Hayyā-
niyah and Bir Zerūd, these wells are perhaps
disused.]

16½ m. From this point *Trobah* (Trubah) wells (see
Route No. 3, p. 78) lie 10 m. ENE.

4 m. Dir. now SE.

miles.

total. stages.

10 m. *Khubb Shāmāh* entered and crossed diagonally. *Darb Zobeidah* crosses in this district ; see below, Route No. 3, p. 78.

Dir. ESE. along the *Khubb*.

32 m. Sand-ridge, on S.

298 99 *Bir Zerūd*, a single well in a basin with yellow water of poor quality.

20 m. *Khubb Shāmāh* quitted.

Dir. SE. across 3 sand-ridges, the last named *Nadhīr el-Adab*.

22 m. *Nadhat el-Humeid*, a fourth ridge. *Huweirah* (*Hawairah*) wells 5 m. W. of this point.

Dir. SSE., across broken ground and hollows.

13 m. *Bir esh-Sherri*, well, 7 m. to W. Gara ridge to E. for some 20 m.

3 m. Route from *Samāwah* to *Boreidah* via *Leinah* wells, *Zubīri* and *Quseibah* crosses here ; see Route No. 6, p. 86.

8 m. *Sarūt* plain begins ; 11 m. to end of stage.

375 77 *Raudhat el-Dughmāniyah*. Wells of *Beid* 1 hr. away. Continue through *Sarūt* plain.

12 m. *Khabrat ed-Dawāyah*.

5 m. *Sha'ib* crossed after end of plain.

2 m. *Raudhat Umm el-'Asharah*.

7 m. *Weitat*, village ; thence on for 11 m. to end of route.

412 37 **BOREIDAH**, town ; see I, pp. 370 ff.

[NOTE. In the above Route and in others for which Shakespear is an authority (e.g. Nos. 8-10, 12, &c.) distances and directions given in his road-book have in the main been retained ; but it may eventually be found necessary to readjust them slightly for the 1 : 1,000,000 Map of Northern Arabia.]

ROUTE 3

NEJEF—HĀ'IL

(Darb Zobeidah)

Authorities : Huber, 1881, supplemented by information supplied by Blunt, 1879
 Leachman, 1910, Persian Gulf Gazetteer, 1908, India Government Record
 Book, and native information obtained by Carruthers.
Direction : S. by W. to Sha'ibah ; then W. by S. to Hā'il.
Distances : Crow-fly, 340 miles ; road, 403 miles.
Character and Supplies : see p. 26 f.

miles.
 total. stages.

NEJEF (or Meshed 'Ali), walled town of Turkish 'Irāq, in the desert 6 m. WSW. of Kūfah ; its principal building is the famous shrine, containing the tomb of 'Ali ; there are government offices, barracks, bazaars, and 6 brick *khāns* (outside the walls to the NE.) ; pop. 30,000.

Dir. almost due S., sharply descending limestone cliff, on which town stands, and crossing shallow depression (22 miles by 8 miles) known as *Bahr en-Nejef*, dry, except in flood season ; ground spongy and heavily impregnated with salt.

14 m. Road emerges from depression and runs among sandhills with brushwood and pasture.

6 m. *Rehābah* (or *Qasr es-Seyyid*), small village built around a castle in the midst of well-irrigated and cultivated land ; a fine spring (*'Ain es-Seyyid*) near castle walls, but sulphurous.

32 32 *Qasr er-Ruheimi*, small village with one spring of bitter water ; plenty of camel-pasture. [If there is water in the *Bahr en-Nejef*, route skirts edge of depression, going first NW. and gradually trending back to SE., passing *Qal'at Azeir* at 26 miles (a good spring 1 mile from edge of lake) and reaching *Qasr er-Ruheimi* at 57 miles from Nejef ; sandy hillocks most of the way.]

miles.

total stages.

Dir. S. by E.

1 m. *Wādi* (or *Sha'ib*) *Hisb* is crossed ; holds a running stream said to be perennial.

Dir. continues S. by E., by well-defined route across perfectly naked tableland of silex, crossing *Sha'ib Shebeikhah* and *Sha'ib Khathamah*, at about 5 miles and a further 4 miles respectively.

14 m. *Bir Wamegrün*, castle and reservoir.

Dir. S. by W.

6 m. *Bir Meghrithah*, two reservoirs and castle.

7 m. *Birkat el-Hamīd*, one square reservoir.

8 m. *Birkat el-Hammām*, situated to E. ; castle, reservoir, and well ; 'reservoir well preserved and has water' (Huber). A ridge of hills lies to the W. (Blunt).

14 m. **Birkat Atelahāt**, one of the most important stations of the Darb Zobeideh ; ruins of great khān, with walls 4 or 5 ft. above ground, and of about 100 small houses ; 3 reservoirs and 1 round and 2 square double wells, the two latter of remarkable construction, cut with great precision out of solid rock, over 200 ft. deep, 5½ yds. square at opening, dry, possibly always so ; reservoirs also dry and filled with sand. This place known also as *Mafrag ed-Darb*, as road bifurcates here, the other fork going to *Qasr es-Sa'id*.

Dir. almost due S., crossing, at about 13 miles on, the dividing line between Shammar and Anazah territory.

14 m. **Bir Shebeikhah**, famous wells, situated about 4 miles W. of route and about 5 miles from *Washrāf* ; about 300 in number, of modern construction, 6-13 ft. deep, said to have water only after rain ; water putrid, salt, and bitter.

100 68 **Bir Washrāf** (or **Sharab**) situated in depression (5 miles by 2 miles) forming lake after rain ; about 60 wells cut in rock, 3 ft. or more in diameter, the greater number submerged after rain ; water bad.

miles.
total. stages.

- 1½ m. *Jāl el-Wāqsah*; route descends about 80 ft. down two sharp scarps. About 6 miles to SE. from foot of *Jāl* a very large well, *Bir Wāqsah*, about 60 ft. deep, sweet water; and about 8 miles SE. again of *Bir Wāqsah*, a line of 3 wells—*Jil*, *Shebrom*, and 'A'āt; first, bad water, others good.

Road now traverses plain of *Mahamīyah*, flint strewn, but with grass in patches; and in about ½ hr. crosses band of little hills of 'Athmān running E. to W.; then continues again along the flat.

- 22½ m. *Qasr 'Athmīn* ('Athmīn, plur. of 'Athmān = 'Othmān) ruined castle and a reservoir about 46 ft. square, full of water; visible at some distance owing to the mounds of soil thrown up in excavating the well, which stand out against general flatness of ground.

Route here bordered, to near *Bir el-'Aqabah*, by walls of rough build, in good state of preservation, 2 yds. in height in places, but probably originally higher; thickness varying from 1 yd. to 1½ yds.

- 3 m. *Bir el-'Aqabah*, one of the most important stations along route; considerable ruins of houses; 2 reservoirs; one (120 yds. by 95 yds.) partly ruined and sanded up, but containing some water; a second, smaller, with no water; also 4 remarkable wells, described by Huber as 'the most beautiful he had ever seen'—one 4½ yds. square, walled from mouth to depth of about 25 ft. and the remaining portion cut in solid rock; the others smaller. All wells made with great care, 180–190 ft. in depth, but containing no water.
- 7 m. *Jāl el-Batn* reached; an abrupt scarp leading down by a torrent bed to the broad depression of *El-Batn* (or sometimes known as the *Wadyān*), which extends NW. and SE. across route for about 100 miles. Road makes steep descent of 120–150 ft. into the *Batn*;

miles.
total. stages.

descent described both by Blunt and Huber as 'impossible both for men and animals except at one point'. A certain amount of pasturage to be found at foot.

- 3 m. *Umm 'Asāfir*, at foot of Jāl; the first of a series of three reservoirs along the route, at some distance apart, and containing water after rain. Route narrows for a time to single track and crosses broken stony ground of Wādi el-Batn.

- 160 60 **Birkat el-Jumeimah**, ruins, and a reservoir 90 ft. square and about 20 ft. deep, in a depression, with steps leading down to water and troughs for watering animals; reported by Leachman (whose route crossed here) in 1910 'in good condition'; in February of that year, sufficient water for 12,000 men for several days.

[A route goes off W., and eventually turns NW., to link up at Umm Musheiq (see p. 83) with the Kerbela-Hā'il track.]

Dir. a little W. of S., over stony ground.

- 8 m. *Sha'ib Abarwāth* (possibly Blunt's *Wādi Rutha*) is crossed; a narrow valley, described as extending about 36 miles E. and W. Huber mentions that this valley after rain is sometimes filled by stream 100 yds. wide, and 2 ft. deep or more.

- 3 m. **Birkat ez-Zebālah** (Zobalah), situated in oval depression ($2\frac{1}{2}$ miles by $1\frac{1}{4}$ miles); 4 reservoirs and 5 large wells, the most important till 'Ashaq; wells 130-160 ft. deep, cut in rock, with masonry parapets much crumbled. Leachman reported (1910) that the largest reservoir had been partially destroyed. On edge of basin are some ruined houses, which can be seen from very far and serve as a good landmark.

Route now goes for about 8 miles through volcanic country, soon passing, to l., a little isolated building called *'Aqalat er-Renemi*, and then ruins of castle of *Bātil Athūl*.

miles.
total. stages.

- 7 m. *Birkat esh-Sheihīyah* (Asheihebah), 2 reservoirs situated in an extensive shallow depression; one round, the other square; water-supply doubtful; ruined castle with walls still standing several yards above ground, with well near.

Along this section, for about 5 miles, the route is again bordered by walls, almost to *Birkat Ashabah*.

Birkat (or *Qasr*) *Ibn 'Atīyah*, a well and small castle in ruins.

- 34 m. **Birkat Ashabah** (Huber), '**Ashshār** (Blunt), important place, one large building, and about 100 small houses; 3 large reservoirs and about 100 small, all hewn in the solid rock. Immediately beyond this place, the Nefūd is entered for the first time, and crossed for 12 m., when stony desert is again encountered.

- 25 m. **Birkat el-'Ashaq**, about $1\frac{1}{2}$ miles E. of road; a concrete reservoir (280 ft. by 190 ft.), situated half-way up a hill and intercepting the waters of a stream which comes down it. This is the last of the Zobeidah reservoirs; being broken (according to Blunt), it contains only a small mudhole; Huber, on the contrary, describes it as being in a perfect state of preservation, but empty, when he was there, owing to want of rain. Near by, a second reservoir, smaller, less well preserved, and almost silted up.

- 252 92 **Bir Belegbīyah**, camping-ground; well, not mentioned by Huber. Route No. 7, *Sūq esh-Shuyūkh-Leinah-Hā'il*, joins here (see p. 88). At some distance to NW., Huber reports 10 wells of *Bir Terbiyah*.

After about 2 hrs. the Nefūd is entered again and continues till about 3 hrs. from *Metheyāhah*.

Route passes again for some few miles between stone walls, here from 20 to 30 yards apart.

miles.
total. stages.

- 16 m. *Metheyāhah*, in stony desert.

Route again crosses tongue of the Nefūd, termed 'Matsour' by Huber, = 'Ardh el-Madhua' (*Madhū*) of Leachman; here a narrow strip about 6 m. in width, which, parting from the main Nefūd, stretches eastward for a great distance; then road again enters arid stony desert.

- 17 m. *Trobah* (Trubah), situated on western edge of large tract of extraordinarily arid stony desert stretching eastward and dotted with islands of sand, known as *Dhebeib* (or *Dhabib*) *el-Kebīr*; the subsoil of this tract is of compact texture, like white mortar; 2 walled wells, water at 30 ft.; water stinking and bitter when first drawn, but improves as wells are drawn upon. Other wells of *Met'ab* near, where there is also a small castle.

At 18 miles NE. of Trobah, 14 wells of *Khadhra*, cut in rock, 2 yards in diam., water at 46–52 ft., a little bitter.

- Dir. S., still across arid stony Dhebeib el-Kebīr; then route again crosses intermittent Nefūd till near Sha'ibah.

- 18 m. *Khubb Shāmah* is entered; here there are several wells, *Bir Hashami*, *Waseit*, and *Bir Zerūd*, all to E. and NE. of route. [Route No. 2, from Jauf to Boreidah (see above, p. 72), is crossed in this district.]

[There is an alternative and somewhat more direct route, though less well furnished with wells, sometimes followed by the Hajj caravans in preference to the true Darb Zobeidah, between *Birkat Ashabah* and *Shāmah*, passing by way of the wells of *Khadhra*; see above.]

- Dir. S. by W., continuing through intermittent *nefūd*, or rather *dahanah*, which has here but little of the alarming characteristics of the main Nefūd, being generally only hills of sand separated by gravelly depressions. The Nefūd is finally left a few miles short of Sha'ibah.

miles.

total. stages.

11 m. Road turns due W., and a road comes in l. from Boreidah.

318 66 **Sha'ibah**, 30 or more wells, salt and bitter water at 17-20 ft., situated in a bare open space.

Dir. slightly N. of W. over undulating ground and skirting the southern edge of the main Nefūd; occasional good pasturage and fuel.

12 m. *Lughf en-Nefūd* (or El-Ghabīyah); a little to the N., the edge of the Nefūd stands up like a wall about 125 ft. high.

349 31 **Beq'ā** (or *Baq'ā*), situated in an immense soft whitish depression (*sabkhah*) running E. and W.; village composed of two groups of houses—the eastern *Sehebi*, the western *Uweimi*, each having a square castle; between the two, a little group of four houses called *Serqīyah*, formerly known as *El-Hammām* or *Mereiḡib*; near by, an isolated property called *Qaseifah*, surrounded by fields. Middle of basin is covered with thick bed of bitter salt. Water abundant, but the only well giving passable water (of a whitish-blue colour) is that of Uweimi. The palms of Beq'ā are very fine and produce good dates; wheat and barley are cultivated.

Dir. WSW.; good going over fairly level sandstone desert.

[Blunt went from Beq'ā (which he calls 'Taibetism', i. e. *Tayyibat Ism*) to Sha'ibah in an almost direct line, passing the well of *Beyyūd*, at about 18 miles.]

369 20 **Bir el-Khāserah**, in a very shallow depression; about 30 wells of fair water at 20 ft., but all silted up, and water shallow and liable to fail.

Dir. SW. at first, leading into Wādi Hā'il, then gradually trending WSW.

12 m. *Wādi Shaḡiq*; good pools of water after rain; much brushwood, and consequently good fuel and camel-grazing both here and in *Sha'ib* (or *Wādi*) *Hā'il*; ravine country and rough ground traversed for some distance. Rock or hill of *Sa'tikah*, covered with inscriptions, and a prominent landmark, is passed.

miles.
total. stages.

7 m. *Amadhān*.

For a mile or two track crosses a stretch of level desert, good going; sandstone then ends and granite plain extends to Hā'il, about 3 hrs. march; after about 6 miles, route runs down a wādi bordered with palm-groves, with here and there fine clumps of tamarisk. Mounds passed with ruins of houses, probably the remains of a more ancient town said to have existed E. of the present town of Hā'il. Jebel Samra passed to S., just before end of route.

403 34 **HĀ'IL**, town; see I, pp. 384 ff.

ROUTE 4

NEJEF—HAYYĀNĪYAH—HĀ'IL

Authority: Miss Gertrude Bell, 1914.

Direction: General dir. SSW. To wells of Lōqah, SW. by S.; afterwards, a little W. of S.

Distance: Crow-fly, 340 miles; road, 357½.

Character and Supplies: see p. 27 f.

miles.
total. stages.

NEJEF, town of 'Irāq; see above, p. 73.

Dir. S. through cultivation irrigated by canal from *Nahr Hindīyah*.

6 m. Cultivation ends. Route runs alongside of *Bahr en-Nejef*.

9 m. Bahr en-Nejef quitted; 3 m. to end of stage.

18 18 *Qal'at er-Rehābah* (or *Qasr es-Seyyid*), village of fellāhīn from Nejef Castle; abundant spring ('*Ain es-Seyyid*) rising close beneath walls, water slightly sulphurous. Cultivated fields.

Dir. W. by N.

2½ m. *Umeilah*, rain-pool under sloping rocks.

Dir. S.

9 m. Dir. changed to SSW. An alternative and well-beaten track from Nejef comes in here.

miles.
total. stages.

Dir. SW.

22 m. *Jawārīd*, water-course, muddy and dry in summer.

16 m. Route now enters the *Wādi* (or *Sha'ib*) *Hish*, here a shallow valley with good pasture.

5 m. *Wādi Hish* is quitted.

22 m. *Sheikhah* hills crossed.

7 m. A flint-covered escarpment is descended into the *Batn*, a wide low depression NW. to SE., about 26 m. broad, with scanty pasturage.

Stony country traversed, with low rocky ridges.

29 m. The *Batn* is left; from this point it is 35 m. to *Lōqah*.

165½ 147½ *Lōqah*, group of wells, 3-4 in use, with a good supply of water at 90-150 ft.

7 m. Cross *Wādi el-Khad*. Water-holes reported about 10 m. to W.

3 m. *Jalka*, natural dam in *Wādi el-Khad*; water-pools; *wādi* is here left; 12 m. to end of stage.

187½ 22 *Wādi el-Khadd*, water-pools and good pasture.

Dir. S. Soon after leaving *wādi*, pasture ceases: stony ground, *El-Hajarah*, then begins, and after many miles is succeeded by sand-slopes and flats.

16 m. *Nefūd el-Aqrab* is entered and crossed for 6½ m., when dir. is changed to SSW.

19½ m. A *dahanah* belt is entered, which continues for 9½ m.

15½ m. *Jubb el-Muneishfi*, small water-hole, dry in summer; 24½ m. to *Hayyāniyah*.

263 75½ **Hayyāniyah**, fort with two towers and garrison of a few of the Emir of Hā'il's men. Well with good supply at 150 ft. [Here Route No. 2, from *Jauf el-'Amr* to *Boreidah*, is crossed; see above, p. 71.]

Nefūd entered. Patches of hard ground (*jelad*); sand comparatively shallow for about 25 m., then deeper for 9 m., afterwards again becoming shallow.

34 m. *El-Mejlis*, big sand-hills, to E.

On for 17 m. by well-marked track, through sand-hills to end of *Nefūd*; then 2½ m. to end of stage.

miles.

total. stages.

- 316½ 53½ *Qulbān et-Tayyim*; water-holes 1 m. to E.
 3 m. *Khabrah Mundāsah*, rain-pool.
 6 m. *Jelf Humeimi*, ridge of low sandstone.
 17 m. *Jeithanīyah*, village; wells and patches of cultivation.
 6 m. *Suweifi*, deserted village; wells 2 m. N., with stone house belonging to a Meshed family. Flat stony ground.
 2 m. Track to *Buka* and the *Darb Zobeidah* on left. On by stony track through *Jebel Samra* for 7 m. to end of route.
- 357½ 41 **HĀ'IL**, town; see I, pp. 384 ff. The town is entered by the Medina Gate.

ROUTE 5

NEJEF—HAZIL—HĀ'IL

Authorities: Wallin, 1848, Leachman (1910, section Bir Samīt to Majāmir, and 1912 for Hazil itself), and Miss Bell, 1914, from a point N. of Bir Tayyim (or Qulbān et-Tayyim) to Hā'il (see Route No. 4).

Direction: SW. by S.

Distance: Crow-fly, about 340 miles; road, 377. Both direction and distance are affected by the change in the conjectured position of the wells of Hazil, which has been moved two degrees to the W. since Wallin's time. Intermediate distances between Hazil and Hā'il must be regarded as approximate, since they depend upon a reduction of Wallin's hours into miles, and his rate of progress is not exactly known.

Character and Supplies: see p. 28.

miles.

total. stages.

NEJEF, town of 'Irāq; see above, p. 73.

For details of the track from Nejef to Qasr er-Ruheimi, see Route No. 3, p. 73.

- 32 32 *Qasr er-Ruheimi*, small village with one spring of bitter water. Here route diverges from the *Darb Zobeidah*, which goes off S. by E.

Dir. SW. by W. across a broad open valley, then into the stony *Hajarah* desert,

- miles.
total. stages.
- 87 55 *Bir Samūt*, group of 8 wells, which in Feb. 1910 supplied about 1,000 men, but not their camels. Here route from *Kerbela* joins.
Dir. S. through *Hajarah*. At about 15 m., well of '*Ashūriyah* passed 3 m. to W., and, a few miles farther, wells of *Sīqal* 3 m. to E.
- 125 38 *Musheiqiq*, cisterns, not to be relied upon after May. [From here a track goes off SE. via wells of *Lifah* (24 m.) and *Lughatan* (43 m.) to *Birkat el-Jumeimah* on the *Darb Zobeidah*, a total distance of about 90 m.]
Dir. SW. Route traverses low sandy plain, *Majāmir*, strewn with sand-hummocks, then crosses *Wādi Hisb* and re-enters *Hajarah* desert.
- 198 73 **Bir Hazil**, a group of 100 stone-lined wells scattered over a depression about 10 m. in circumference. Fairly constant water at 60 ft.
Dir. SW. by S., still over *Hajarah*. About m. 42 a ridge of sand, *Ed-Dahanah*, crossed in 1½ hrs., and a region called *Hamātiyah* traversed, where water is sometimes found in cavities of limestone rocks. 3 hrs. beyond begins a tract of firm sand, and 4 hrs. farther, softer sand. After 3 more hrs., *Jebel Seilah*, a low range of sandstone hills, is passed; Route No. 2 (see above, p. 71) is crossed here. The end of the stage is reached in 4 hrs.
- 293 95 *Bir 'Atwa*, a stone-lined well, said by Wallin to be 300 ft. deep.
Dir. SW. by S., across *nefūd*, which ceases an hour before reaching *Bir Tayyim*.
- 332 39 *Bir Tayyim*, a deep hole in the middle of the *Khattah* plain.
Dir. SSW. for 3½ hrs. through the plain, after which a low sandstone ridge, *Jebel Qaisi*, is crossed. On through sandy desert, known as *Daqqi*.
- 358 26 *Jadhāmiyah* (= *Jeithaniyah*, p. 82), small village with water; dates and cereals cultivated.
Dir. S. by W. At about 9 m., *Waqīd*, small village of 40 houses, with wells, water at 50 ft.; small date-groves; thence 3 hrs. to end of route.
- 377 19 **HĀ'IL**, town; see I, p. 385 f.

ROUTE 6

SAMĀWAH—BOREIDAH

Authorities: Leachman, 1912, with details from Huber, 1881, and native information.

General Direction: SSW.

Distance: Crow-fly, 335 miles; road, 365 miles. For the first 6 stages no measurements are available for intermediate distances, and the route is divided into day's marches.

Character and Supplies: see p. 28 f.

miles.

total. stages.

SAMĀWAH, large and flourishing town of about 10,000 inhab. on the Euphrates in Turkish 'Irāq, with government offices, barracks, 6 *khāns*, 8 mosques, and 250 shops; a bridge of boats over the river. Date groves, chiefly on r. bank.

Dir. SSW. along the *Darb es-Selmān* across gradually ascending desert of *Shamīyah* for a long day's march.

Jufrah (Gofra), wells frequented by Bedouins. Route now enters the stony *Hajarah* desert, crossed for a day's march.

Abu Khuweimah; rain-water, obtainable only in winter. Continue over desert another day.

Selmān, numerous wells, but poor water. Another day's march across desert.

Haqai el-Ferdūs, shallow depression holding water after rain. Again a day across desert.

Khadid, with water after rain, but no wells. Continue for a sixth day's march.

160 160 **Leinah**, camping-ground between the *Hajarah* desert and the *Nefūd*. Several hundred wells, spread over an area of 5-6 miles and sunk in hard white limestone; abundant water at about 60 ft.

Dir. SSW. up the valley.

10 m. *Dahanah* reached; the name here given to a strip of sand breaking off from the *Nefūd* and bending to SSE. Heavy going over dunes of red sand 50 ft. high, and 300 yds. apart.

miles.
total. stages.

Dir. S.

15 m. End of Dahanah. District of *Teisiyah* entered, a rolling plain of calcareous rocks traversed by many well-marked wādīs.

7 m. A line of cairns said to be ancient landmarks.

2 m. *Wādi Kathāl* crossed; bed 500 yds. wide with masses of *sidr* (a kind of acacia). *Sha'ib Zobar* entered, and followed to its head. Over stony plateau for 4 m. to head of another *sha'ib*.

24 m. *Sha'ib Asisi* crossed, into which the previous *sha'ib* runs.

Dir. SE.

6 m. *Sha'ib el-Agra (Agra)* crossed.

Descent of a steep incline, and on to end of stage.

232 72 *Zubiri*, wells in depression on edge of the *Nefūd*; good water at 30 ft. After watering several camels, a few hours must be allowed for water to rise.

Dir. S. by W. across *Sha'ib Zub'ib*.

5 m. *Ardh el-Madhū'*, a tongue of sand projecting E. from the *Nefūd*, with high dunes of red sand, 150 ft. between trough and summit; difficult for laden camels.

7 m. *Ardh el-Madhū'* quitted. Over level gravelly plain without grazing.

5 m. *Zerūd* well lies 20 m. to W. Over flat stony plain, *Shāmat ez-Zerūd*, lightly covered with sand in parts.

5 m. *Bittah*, a tract consisting of seven great sand-dunes, 150 ft. high, separated by gravelly depressions; heavy going for laden camels.

13 m. *Bittah* quitted. *Nawādhir* entered and crossed, a broad down-like ridge of sand about 200 ft. high.

3 m. Over flat gravelly plain covered with grass, and on for another 3 m. to end of stage.

273 41 *Hubiri*, water at 30 ft.

Dir. S. across flat gravelly plain for several miles; sand-dunes passed on W.

miles.

total. stages.

17 m. *Khafiyah* plain reached ; well of *Sherri* lies 7 m. to W. ; *Gara* ridge on E. [Near this point Route No. 2, from Jauf to Boreidah, crosses track ; see above, p. 72.]

13 m. *Nuqrat el-Quseibah* reached. Descend into it.

2 m. Pass between wells of *Suwāl* to E., and *Sudāyah* to W., each at 3 m. distance.

309 36 **Quseibah**, a village or small town stretching for a mile along the foot of a precipitous sandstone cliff ; pop. 1,000 ; wells with abundant sweet water.

Dir. S., up steep path to top of cleft at S. end of village.

20 m. Dir. a little E. of S., over level stony ground ; several rocky ridges crossed during remaining 8 m. to end of stage.

337 28 **'AYŪN EL-QASIM**, town, pop. 4,000 ; see I, p. 373.

[Here the track joins Route No. 15 from *Hā'il* to *Boreidah* ; see p. 114.]

Dir. SE., down depression with *jāl* on left bearing away ESE., groves and small settlements under it visible 2-3 m. away. Sandy *Sārah* steppe on right.

12 m. *Qara'ah*, village ; two settlements 1 m. apart ; 500 inhab. ; wells, brackish water, at 80 ft.

2 m. Salt lake, often dry.

1 m. *Shiqqah*, village ; 500 inhab. ; large groves ; wells with brackish water at 40-50 ft. On to end of route (13 m.), through gritty sand desert with sandstone outcrops, and then soft *nefūd*.

365 28 **BOREIDAH**, town ; see I, p. 370 ff.

ROUTE 7

SŪQ ESH-SHUYŪKH—LEINAH—HĀ'IL

Authorities : For the first part of the route, from Sūq esh-Shuyūkh to Bir Belegbiyah, Leachman, 1910, and native information. For authorities for the section Bir Belegbiyah-Hā'il, see Route No. 3.

Direction : SW.

Distance : Crow-fly, 358 miles ; road, 391 miles.

Character and Supplies : see p. 29.

miles.

total. stages.

SŪQ ESH-SHUYŪKH, important town of Turkish 'Irāq, on the Euphrates, the greater part lying on the r. bank ; pop. about 12,000. The river is here spanned by a bridge of 12 pontoons, increased to 15 or 16 when the river rises. The town, which is frequented by Bedouins for purposes of trade, possesses a bazaar of about 200 shops. There are numerous fruit gardens, and the date-plantations extend up the l. bank of the Euphrates, meeting those of Nāsiriyyah. The neighbourhood is marshy and the climate unhealthy. Single telegraph lines to Nāsiriyyah above and to the village of Hammār on the river below ; post-office.

Dir. SSW. across gravelly undulating desert.

- 21 21 *Qasr Bir Shaghrah*, ruined fort overlooking water, which lies in a hollow.

Dir. SW. across similar country. From here onwards the grazing is excellent and fuel abundant, but there is no water until Bir Arkamiyyah is reached. Between the thirteenth and fortieth miles from Qasr Bir Shaghrah, the isolated hill *Jebel Haniyyah* is seen on the E. of track.

- 101 80 *Bir Arkamiyyah*, many wells in a wādi ; a well-known camping ground for Bedouins in summer. *Bir Amghar*, well with plentiful supply of water, lies about 8 m. to the N.

Dir. SW. across a gently undulating plain of sandstone or limestone, strewn with gravel ; there are occa-

miles.

total stages.

sional outcrops of limestone which take the form of low flat hills.

11 m. *Bir Jureibiyah*, 40 wells with plentiful supply of water in winter ; dry in summer.

124 23 *Bir Ghubbah*, four wells in a wādi, with water all the year round.

Dir. SW. over gravelly and very level desert.

154 30 *Bir Unsab*, four wells in a wādi.

Dir. WSW. over similar country.

9 m. The track descends a short steep hill.

11 m. A similar hill is descended.

14 m. *Sha'ib Awaj* is crossed.

194 40 *Bir Umm 'Amārah*, well.

Dir. SW. by W.

Shortly before reaching Leinah the track descends a steep cliff, about 150 ft. high, into the valley of Leinah, a long depression about 10 m. broad, running NW. to SE. and sloping to SE. On the N. it is bounded by the Hajarāh with a cliff about 200 ft. high ; to the SW., above another cliff about 150 ft. high, is the Nefūd.

207 13 **Leinah**, camping-ground, with several hundred wells spread over an area of 5-6 miles ; abundant water at about 60 ft. The Darb es-Selmān (see Route No. 6, p. 84) is here crossed.

Dir. SW. across the Leinah valley, and up a steep cliff, about 150 ft. high, on to the Nefūd, where the going becomes more difficult. The route traverses rolling sand-dunes ; the interval between their crests is rarely more than a thousand yards, while the difference between the elevation of the crest and the trough ranges from 100 to 200 ft. After rains the sand is covered with grass and even in summer with dry grass. Acacia trees also occur, and the 'arfaj bush, of which camels are very fond.

240 33 **Bir Belegghbiyah** ; camping-ground ; see above, p. 77.

From this point the route follows the *Darb Zobeidah* (for 151 m.) to Hā'il ; for details see Route No. 3, p. 77.

391 151 **HĀ'IL**, town ; see I, pp. 384 ff.

B. EASTERN ROUTES

ROUTE 8

ZOBEIR—BOREIDAH

Authorities : Knox, 1906, Shakespear, 1910, and native information.

Direction : General direction SW.

Distance : Crow-fly, 355 miles ; road, 378½ miles.

Character and Supplies : see p. 30 f.

miles.

total. stages.

ZOBEIR, town of Turkish 'Irāq, 9 m. SW. of Basra ; population 6,000 ; market-town for the surrounding Bedouin tribes. The town is walled and the surrounding country is entirely barren except on the SE. side, where a tract known as *Dirhamiyah* extends for some 3 m., containing scattered fields of lucerne and melons, hedged with tamarisks.

Dir. SW. along a camel-track over sterile plain.

26 m. *Ratk* ridge crossed.

1 m. The Bātin entered and followed for 11 m.

38 38 *Haleibah*, traces of old wells, but no water.

Dir. continues SW., along the Bātin.

8 m. Traces of old wells.

2 m. *Jarishah* hills passed on r. ; tract of *Khazūmah Radīyah* then traversed.

19 m. *Heil* hill, passed on r., and soon after *Shiqat el-Wāsiyah* on l.

6 m. Traces of old reservoir on r.

4 m. *Eleiba*, hill on same side.

9 m. *Hissu Dhabī*, a valley on r. *Abraq el-Hibāri*, hill on l.

11 m. *Mahza*, hill on l., and then for 11 m. along the Bātin.

miles.
total. stages.
108 70 *Qulbān*.

2½ m. *Thallat el-'Ubeid*, eminence on r.

Route now along a rough track called *Shiqayah* on the E. side of the valley, passing numerous ravines and water-courses for 12½ m. to end of stage.

123 15 *Riqā'i*, wells.

[For *Riqā'i*, and the remaining distance of 255½ m. to Boreidah, see Route No. 9, pp. 91 ff.]

378½ 255½ **BOREIDAH**, town; see I, pp. 370 ff.

ROUTE 9

KOWEIT—RIQĀ'I—HAFAR—BOREIDAH

Authorities: Knox, 1906, and Shakespear, 1910, compared with native information.

General Direction: SW.

Distance: Crow-fly, 290 miles; road, 351½ miles.

Character and Supplies: see p. 31.

miles.
total. stages.

KOWEIT, town; see I, p. 295 f.

Dir. W. along road S. of Koweit Bay; loose sand for 5 m., then firmer undulating ground.

20 20 **Jahrah**, village; permanent pop., 500; see I, p. 296 f.

Dir. SW. by S.

7 m. Dir. changed to WSW.

8 m. Ridge of *Sāddah* crossed.

3 m. Descent into *Shaqq* valley.

40 20 *Khabrat el-Farāq*; pool, usually without water except after heavy rain.

Dir. S. of W., continuing along the *Shaqq* valley.

2 m. *Shaqq* depression left for district of *Dibdibah*.

7 m. General route to Qasim entered, consisting of 6 parallel tracks through *Dibdibah*.

44 m. *Khabrat Umm el-Hamir*, where route ascends a series of terraces, then descends again, reaching *Riqā'i* in 3 m.

miles.
total. stages.

96 56 *Riqā'i* wells, scattered in a hollow; water not always found in hot weather.

Here the route joins that from Zobeir (see Route No. 8, p. 90).

Dir. SW. along the *Bātin*, crossing 3 dry ravines.

9 m. Well.

6 m. Well.

5½ m. Two groups of mounds called *Dharābīn*.

4½ m. *Qulbān*; traces of old well.

9 m. *Qasr el-Ballāl*, ruinous walled enclosure, 90 ft. square, with door to S.

154½ 58½ **Hafar**; group of wells near the point where the Dibdibah country is left for the *Dahanah*. There are 40 wells in the bed of the *Bātin*, which here forms a circular plain some miles in diameter. Wells lined with masonry, but only about 10 have water, reached at average depth of 150 ft. At Hafar, two water-courses, *Fuleij esh-Shamāliyah* and *Fuleij el-Janūbiyah*, enter the *Bātin*.

[Here an *Alternative Route* from Koweit via Abul-Hirān comes in; see below, p. 93 f.]

Route continues along the *Bātin*.

6¾ m. *Haleibah*, with *sidr* bushes.

9¾ m. Two valleys; beyond these are two hills (known as *Fiwān*) between which the *Bātin* runs.

10 m. At 1 m. to E., *Burj esh-Sherif*. The *Bātin* narrows here; *sidr* bushes.

6¾ m. *Umm el-Hashīyah*.

1½ m. *Gasa*; traces of stone buildings and wells.

The sides of the *Bātin* are now steep, like cliffs.

2¼ m. *Burj Umm el-Hashīm*.

5 m. *Bātin* bends to left; Sha'ib Mithyah to NW.

2½ m. *Umm el-Awājil*; *Bātin* still steep-sided and narrow.

2½ m. Old well and buildings.

3¼ m. *Mesjid Ibn Rashid*.

3¾ m. 3 deep wells, probably containing water; traces of buildings.

miles.
total. stages.

- $\frac{3}{4}$ m. Bātin bends to left ; bank very high on W.
- $1\frac{1}{2}$ m. Valley, *Sha'ib Umm esh-Shaltar* on E. In the next mile 10 old wells are passed.
- $3\frac{3}{4}$ m. *Qulbān Ibn Towala*.
- $6\frac{1}{2}$ m. Valley on left, *Umm es-Sidrah*.
- 5 m. *Bareikhab*, with an old reservoir, a big square tank with steps on all sides, said to be 24-30 ft. deep, the sides smooth and finely plastered.
- $8\frac{1}{2}$ m. *Khashm eth-Thamāmi*.
- 3 m. Valley at approach to *Dahanah*.
- $4\frac{1}{2}$ m. Valley crossed and top of *Dahanah* reached, where there is a cairn. The *Dahanah* is here a narrow belt crossing and blocking the Bātin. At the top, alternative track from *Kasham eth-Thamāmi* comes in.
- $9\frac{1}{2}$ m. End of *Dahanah*.
- $3\frac{3}{4}$ m. *Sha'ib Tayyib Ism* ; 25 wells, sweet water at 18 ft.
- $2\frac{3}{4}$ m. Sandy plain, *Dikakah*.
- $7\frac{3}{4}$ m. Big water-course, *Sha'ib Hisāli*, crossed. Stony country, called *Teisiyah*, is traversed.
- $11\frac{1}{4}$ m. Route descends first shelf from *Haqai* (*Hagai*).
- $1\frac{1}{2}$ m. Beginning of descent of second shelf.
- 1 m. The valley is reached between the ridges of *Haqai* and *Āsiyah*. Wells are numerous but rather shallow ; water clean, though brackish.
- 280 $\frac{1}{2}$ 126 *Ajibbah* (or *Jibbah*). Wells.

[For a variant description, from native information, of the section of the route between *Hafar* and *Ajibbah* see below, p. 94. From *Ajibbah* a track forks SE. to *Zilfi*.]

Dir. continues SW.

- $1\frac{1}{2}$ m. Route enters *Nefūd* ; then over hard sand and between dunes, through seven *nefūd* tracts separated by strips of stony plain a mile or two broad (i.e. *dahanah* country), and called *Madhūr*, *Buweitir*, 'Amār, *Beidha*, *Beisiyah*, *Batrah* and 'Arq el-Bilād.

- miles.
total. stages.
- 316½ 36 **Ain Ibn Faheid**, village of 75 houses, and remains of ruined fort, *Qasr Mārid*. Cattle, sheep, dates, and grain available. There is a spring for irrigation, but the water is undrinkable, the nearest good water obtained from *Wāsīt* (or *Waseitah*) at a distance of 6 m. S.
Dir. SW. by S. over undulating stony plain.
12 m. Loose sand for 3 miles.
3 m. Wells of *Sarīf* lie 4 m. E.; 6 to 24 ft. deep.
Over firm desert for 5 m.
- 336½ 20 **Tarfiyah**, village of 35 houses inhabited by mixed Arabs; one well with water at 36 ft.; some grass and fuel. Direction still SW. by S., first over stony plain, then over loose sand.
- 351½ 15 **BOREIDAH**, town; see I, pp. 370ff.

The following is the *Alternative Route* (referred to above, p. 91) from Koweit to Hafar via Abul-Hirān :

- KOWEIT**. Town left S. Then SW. over barren sandy tract.
10 m. *Jadādiyah*, wells; water at 24 ft., 2 m. W. of wells of *Suleibiyah*. Across *Kubeidah* (or *Kabd*) plateau.
20 m. *Themīlat el-Arbid* (or possibly *Tawīl*; see Route No. 10, p. 95), wells.
15 m. Edge of escarpment overlooking the *Shaqq* valley; then 5 m. across the valley.
- 50 50 **Khabrat ed-Dawīsh**, pool lying just off the track to N.
Course, WSW. over plain.
26 m. Ridge of *Sala'* lies 3 m. to N. From this point, 4 m., to end of stage.
- 80 30 **Abul-Hirān**; water-hole on NW. slopes, said to contain water 1 month after rain.
Dir. SW. by S. over Dibdibah steppe.
40 m. The low ridge of *Musannāh* is crossed.
Dir. W. by S., for 32 m., to Hafar.
- 152 72 **Hafar**, wells; see above, p. 91.
A *variant description* of this alternative route, given in the Persian Gulf Gazetteer from native information, is rather longer.

miles.
total. stages.

The following is a *variant description*, from native information, of the section between Hafar and Ajibbah (see above, p. 91 f.) :

- 154½ **Hafar**, wells (see above, p. 91).
 182½ 28 *Matrubah*, a depression in a valley entering the Bātin from S. ; wells, but water only in spring and winter.
 22 m. *Umm el-Fahūd*, halting-place resembling *Matrubah*.
 2 m. Old tank and dry well.
 1 m. Two more old tanks and wells.
 219½ 37 *Thamāmīyah*. Several wells, 5 with good water at 24 ft. In summer, supply only sufficient for 20 camels.
 2½ m. The Bātin now quitted and Dahanah crossed.
 11½ m. Route enters *Teisīyah* plain, with many *ber* and acacia trees.
 248½ 29 *Tayyib Ism.* 25 wells ; sweet water at 18 ft.
 Dir. SW. across and along dry water-courses fringed with trees.
 265½ 17 *Ajibbah*, wells ; see above, p. 92.

ROUTE 10

KOWEIT—SĀFAH—ZILFI

Authorities : Raunkiaer, 1912, Shakespear, 1910 (to Sāfah), Persian Gulf Gazetteer, 1908, and native information.

General Direction : SW. by S.

Distance : Crow-fly, 264 miles ; road, 300 miles.

Character and Supplies : see p. 31 f.

miles.
total. stages.

KOWEIT, town ; see I, p. 295 f.

Dir. S. through sandy tract of *Qrā'ah*.

- 15 m. *Malah*, group of 5 wells close to S. end of the ridge *Madanīyāt* ; brackish water at 20 ft. Across '*Adān*, a higher tract of soft sand.

miles.
total. stages.

30 30 *Tawīl* (or possibly *Themīlat el-Arbid*; see Route No. 9, p. 93), group of about 12 wells with sweet water at 30–40 ft., a few miles W. of *Wārah* hill.

[The first stage or two may be varied by using different wells. There is a group of 100 wells a mile or so E. of *Wārah* hill, but a more usual halting-place is *Subeihīyah*, 32 m. S. of Koweit and 20 m. from the sea, where there is a scattered group of about 100 wells with water at 18 ft. or less. Another course (cp. 93) is to make for the wells of *Jadādīyah* 10 m. SW. of Koweit and 2 m. E. of the *Suleibīyah* group of wells; but the *Jadādīyah* water is the better. After this the *Kubeidah* (or *Kabd*) plateau is traversed, and the hills of *Minā-qish* passed on their S. side at 34 m. from Koweit; near *Khabrat ed-Dawīsh* the *Shaqq* depression is crossed into a desolate plain, *Qarā'*, the main route being joined at about 95 m. from Koweit in the district of *Mujdeir*.]

Dir. WSW.

10 m. *Umm Kadīr*, a shallow well in a hollow not yielding water in summer.

Dir. SSW., passing successively undulating steppe country, a flat tract, and a district with scrub.

25 m. *Shaqq* depression entered and crossed into the *Qarā'* plain.

40 m. The *Dibdibah* zone entered in the district of *Mujdeir*.

14 m. *Wādī Subān*, running E., with steep r. bank. In about an hour two water-courses are passed, running E.; then, for about 3 hrs., a flatter country overgrown with scrub.

14 m. End of the *Dibdibah* zone. Track now enters stony hill country with projecting rocks, crosses a hollow and ascends a ridge from which a view is obtained into a cauldron-shaped valley with high steep sides on the N. and W.

139 109 *Sāfah*, group of about 20 wells; sweet water at depth of over 100 ft. (Shakespeare, 19 fathoms; Raunkiaer, c. 30 metres). The wells are near

miles.
total. stages.

a patch of vegetation. Raunkiaer only mentions one, with a parapet of loose stones. His time from Koweit = 50 hrs. 41 min.

[From Sāfah a track taken by Shakespear in 1910 leads NW. to Hafar (see p. 91), distant 73 m.; it follows the *Fuleij el-Janūbiyah* for the last 22 m. A second track runs S. (Shakespear coming from Koweit in 1913). Passing the wells of *El-Qarra'*, 25 m., it turns SW. by S. to *Khabrat el-Kummah*, 55 m. (80 m. from Sāfah), whence it runs SW. for about 70 m. Shakespear, following it to *Mejriyah*, travelled parallel with Raunkiaer's track at a distance of 40–50 m.; it again turns SW. by S. at the wells of *Ghayyiyah*, 20 m. beyond the Dahanah zone and 30 m. from *Mejriyah*, and joins the Zilfi-Riyādh route near *Mejma'*.]

Dir. SW. by W. crossing a ridge and passing through a long valley called *Shiri*. After another ridge, a fresh valley-system is entered.

18 m. Isolated group of rocks, close on l., surmounted by a cairn marking a pilgrim's grave. Leaving floor of valley on r., route passes a series of spurs on N., then mounts *Summān* plateau (see I, p. 293) where the valley expands, and is called

6 m. *Jalta*. Over *Summān* SW. by W.

10 m. *Redif ez-Zōr*, a hollow with scrub growth. A little farther on, a similar hollow, named *Jau* (locally pronounced *Yō*) *Soweir*, is seen on l.

3 m. *Jau ez-Zōr*, a third valley. Again across *Summān*.

10 m. *Jirabqah*, a hollow where water stands after rain.

6 m. *Sa'dāni*, a depression resembling *Redif ez-Zōr*; 3 more hollows passed a few miles apart, then over rugged desert surface interrupted by hollows, which in about 4 hrs. becomes flatter.

23 m. *Barbakh*, a small hollow with clay bottom.

6 m. *Safiyah*, a similar hollow. Across undulating ground, with occasional sand-dunes.

6 m. *Khōr Jindeliyat Abul-Asher*, a large hollow.

miles.
total. stages.

Beyond this begins the zone of *Dahanah* consisting of 4 marked sand-belts running NW. to SE. with intervening depressions with clay-covered rocky floors. The belts are as follows: (1) *Abīt*; (2) *Jihām*, about 3 m. wide, with 6 rows of dunes, the succeeding depression 5 m. wide; (3) a higher belt containing lofty dunes, sometimes rising to 250 ft. above the depressions and succeeded by a hollow 3 m. across; (4) a lower belt with dunes of diminishing height, and more vegetation.

15 m. End of *Dahanah*.

Dir. SSW., over undulating country with scrub, and out-cropping sandstone.

8 m. Hollow with luxuriant vegetation; ground rises towards extreme northern and north-western spurs of *Jebel Toweiq*. More rugged country with isolated rocks; then over hilly region.

258 119 *Artāwiyah*, wells in an extensive hollow with mounds about them; that measured by Raunkiaer was about 20 ft. deep. Water is nearly always plentiful. (*Sāfah*-*Artāwiyah* = 44 hrs.)

Dir. SW., ascending from valley; over rugged desert, succeeded by less barren country with larger depressions.

15 m. Large hollow with good grass. [Here track runs S. into *Sedeir*.]

Dir. WSW., over a plain of clay with scrub on the higher parts, and traces of water after rain in the lower. Then low dunes, a scrub-covered hollow, and more dunes.

6 m. *Sebillah*, a broad depression where water collects after rain.

12 m. A bare stony plateau, running almost N. and S., across which track continues.

6 m. An abrupt descent of about 300 ft. into the valley in which, at 3 m. distance, is *Zilfi*.

300 42 **ZILFI**, town; see I, p. 368f. [*Zilfi* was reached by Raunkiaer in 56 hrs. 36 mins. from *Sāfah*, and 107 hrs. from *Koweit*.]

ROUTE 11

'OQAIR (AND QATIF)—HOFÜF—RIYĀDH

Authorities: Raunkiaer, 1912, Leachman, 1912, compared with Sadlier, 1819, Palgrave, 1863, Pelly, 1865, Douglas, 1897, and Burchardt, 1904; also with native information obtained through Prideaux, Gaskin, and others.

General Direction: W. by S., except in the section Qatif—Hofüf, when it is almost S.

Distance. From 'Oqair, crow-fly, 235 miles; road, 249 miles. From Qatif, crow-fly, 244 miles; road, 305 miles.

Character and Supplies: see p. 32 f.

miles.

total. stages.

'OQAIR, port; see I, p. 308.

Dir. SW. by S. across loose sand of the coastal district
Barr el-'Oqair into *Biyādh*.

8 m. *Suwwād*, well with sweet water.

2 m. *Umm edh-Dharr*, near group of mounds
forming a well-known landmark.

1 m. *Biseitīn*; water by digging; some grazing.

[There is an alternative route from *Biseitīn* to
Jishshah; see below.]

14 14 *Bareimān*, wells with brackish water; grass and camel
grazing; ruins of old fort.

Dir. SW. by S. over loose sand.

3 m. *Zaghaimah*; well.

28 14 *Shātar*, 3 wells of brackish water; no grazing nor fuel.

[Here the route from *Dōhah* to *Hofüf* (see Route
No. 75, p. 342 f.) comes in.]

Dir. W. across nitrous depression (*sabkhah*), through
sandhills for 6 m., and for 2 m. over stony plain.

40 12 *Jishshah*, large village of 400 houses; good water, grass,
and fuel obtainable; inhabitants cultivate dates
and own camels. [An alternative route from
Dōhah to *Hofüf* (see Route No. 75, p. 342 f.) comes
in here.]

[Here the following alternative route from *Biseitīn*
(see above) comes in:

1½ m. *Muweih*, camping-ground and wells.

9½ m. *Khuweinij*, good water at 15 ft. from
well on E. side of ruined fort.

13 m. *Jishshah*. Total distance, 24 miles.]

miles.
total. stages.

Dir. due W. through Hasa oasis.

- 1 m. **Bāb el-Jafar**, walled village immediately S. of route ; 350 houses.
- 2 m. **Maneizlah**, village of 250 houses. By well-marked track over a stony plain.
- 2 m. **Fudhūl**, village of 250 houses, on S.
- 1½ m. **Beni Na'ām**, village of 200 houses, on N.
- 1½ m. **Beni Nahu**, hamlet of 20 houses, on N.

Thence 1 m. to end of stage.

49 9 **HOFŪF**, town ; see I, p. 305.

[The above route is more suitable for slow caravans, as water can be obtained at comparatively short intervals. But it is possible to save 5 miles by making direct for Jishshah to the N. of Bareimān and Shātar. Raunkiaer seems to have reduced the total distance to under 40 miles by following an almost straight line between 'Oqair and Hofūf. Passing *Suwwād*, described as an extensive area of wild dates, *Abu Hā'il*, a well in a valley, and a hollow called *Fasīhan*, he entered, at about 8 m., a rough dune tract known as *Rasāl 'Alī*, succeeded by a saline plain in which water is obtainable at a depth of a few feet. Rather more than 20 m. from 'Oqair, he passed into a district called *Hīsa*, with hollows containing wild dates, not long afterwards reaching **Jiffir**, a country town 5 m. E. of Hofūf. In 1904 Burchardt, on a riding-ass, accompanied an armed caravan which halted for one night on the way. He describes the journey as 4 hrs. through a sandy tract, 9 hrs. over regular sand desert, and a few hours through Hasa oasis. Pelly and Leachman both seem to have travelled more or less directly, the latter describing his own route as 40 miles of hopeless sand-dunes. Dromedary riders and horse-men can accomplish the distance from

miles. miles.
tot. st. tot. st.

point to point between dusk and dawn.

The following longer approach to Hofuf is from the port of Qatif, instead of 'Oqair :

QATIF, town ; see I, p. 307.

Dir. S. by W. across low sandy plain.

6 m. *Lājām*, walled village of 50 houses in a detached area of cultivation ; good spring water. Thence for 20 m. through the tract of *Biyādh*.

26 26 *Jidwa'i*, 3 wells, 3 m. W. of the wells and camping-grounds of *Munifah*.

Dir. S. through *Biyādh*.

16 m. *Zughail*, wells.

6 m. *Abul-Hayyāt*, wells.

64 38 *Abul-Hamām*, wells, in SE. corner of the sandy depression of *Jauf*, N. of *Hasa* oasis.

Dir. S.

87 23 *Ghuweij*, 2 wells ; in the *Hasa* oasis.

Dir. SW. by S. through the oasis.

8 m. *Kanzān*, camping-ground and well.

4 m. **Kalābiyah**, village of 250 houses on N. border of the irrigated area, within a mile or so to the NW. of the villages of *Maqdam* of 100 houses, *Haleilah*, 300 houses, *Qārah*, 300 houses, *Jabeil*, 200 houses, and *Treibil*, 50 houses. Thence through cultivation for 6 m.

105 18 **HOFUF.**]

Dir. W. by S. over gradually rising desert.

80 31 *Wādi Farūq*, the halting-place marked by a solitary acacia tree.

Dir. W. by S.

12 m. *Summān* entered.

50 m. *Summān* quitted. Route then crosses level tract, *Malsūniyah*, for 3 m., to edge of *Dahanah*, where a single cairn marks the end of stage.

145 65 *Rijm esh-Shuwei'ir*.

30 m. To end of *Dahanah*.

miles.
total. stages.

- 5 m. To end of plain of hard sand, called *Marbakh*.
Over stony plain for 6 m.
- 186 41 **Abu Jifān**, group of 15 wells with good and abundant water at 18 ft., situated in the 'Urmah tract of the district of 'Aridh.
- 9 m. Same direction over plain of 'Urmah ; then down a boulder-strewn incline called *B'ij* ; then to end of stage over a level desert tract containing trees from which the Bedouins make charcoal.
- 205 19 *Tarābi*, 4 wells with sweet water at 30 ft., situated near the SE. end of the *Watheilān* plain. Over hard sandy plain strewn with gravel, and bearing trees.
- 230 25 **Miyāhiyah**, group of 30 wells with sweet water at 18 ft.
3 m. Over stony plain ; then descent of 15 ft. by a steep incline into a clay depression called *Batn es-Saleyyi*, traversed till the end of the stage.
- 249 19 **RIYĀDH**, town ; see I, p. 357 f.

The following are alternative routes from Hofūf to Riyādh :

I (Raunkiaer, 1912)

miles.
total. stages.
49

HOFUF.

Dir. W. by S. across flat country and a sandy plain called *Mahūt*, bounded N. and S. by rocks.

16 m. *Jau* (or *Jū*), a large hollow.

3 m. *Tlā'ayyah*, a hollow, to S. of which are visible rocks named *Rār* (? *Ghar Seyyid*). Then over rugged country.

6 m. *Bāb*, a valley. Across flat stony desert.

12 m. *Na'lah*, a plateau, whence descent into 3 m. *Wādī Farūq*.

- 92 43 *Shā'bah*, a barren valley, where camp may be pitched. Ascending a plateau, route traverses a hard desert with a light covering of clay, and the Summān proper, for a day's march ; and, for another full day's march, it crosses transitional country, from a

miles.	miles.
tot. st.	tot. st.

- stony surface to sand and clay, and finally to the sand desert.
- 160 68 *Dahanah*. Across the desert, over dunes rising to a maximum of over 80 ft., and running NW. to SE.
- 20 m. Western border of *Dahanah* is reached; thence 1 hr. (3 m.) over sandy steppe to end of stage.
- 183 23 *Ajafiyyah*, a group of several wells, with a restricted supply of water at about 40 ft. Route crosses a region of small sand ridges, a sandy tract with scrub, and a stony desert tract called '*Arma* (? '*Urmah*), into a wādi with remarkable eroded rocks.
- 207 24 *Medāq esh-Sha'ib*.
Dir. WSW. through rocky country into a long tract of alternating stony desert and steppe, stony ridges between depressions, and Summān-like desert; direction then changed to SW., and a broad valley entered with good grazing, frequented by Bedouins.
- 241 34 *La'ān*, a plateau running N. and S., bounding the valley on the E. side. Thence 13 m. over stony desert ground to end of stage.
- 254 13 **RIYĀDH.**

II

49. **HOFUF.**

- Dir. WNW. across waterless desert through the districts of *Badd el-Asīs*, *Jau es-Sa'dān*, and *Taff*.
- 36 m. *Jebel Ghār esh-Shuyūkh* lies S. by W. at a distance of 6 miles.
- 119 70 *Jūdah*, wells in the Hasa district of *Taff*, between two hills, *Jebel Jūdah* and *Jebel Hamrāt el-Jūdah*.
- Dir. SW. through the waterless Summān and *Dahanah* zones.
- 209 90 **Abu Jifān**. See main route (p. 101), actually joined at *Sa'd* in the neighbourhood of *Abu Jifān*. (Pelly's route in 1865 may have approximated to this.)

miles.	miles.
tot. st.	tot. st.

III

49 **HOFUF.**

Dir. almost S.

1 m. *Ruqaiqah*, water from pits.17 m. Route enters district of *Kharmah*.

89 40 '*Aweisah*, wells stated to yield good and abundant water, situated about 4 m. W. of *Jebel Kharmah*, a conspicuous landmark.

Dir. W. through the tract of *Ghuwār* and across the plateau of *Na'lah*.114 25 *Wādi Farūq*.

Dir. W., successively across desert of Summān-type and Dahanah.

214 100 **Abu Jifān.** See main route, p. 101.

(This route appears to correspond with that followed by Palgrave.)

A longer and more southerly variant to Alternative III, after leaving '*Aweisah*, proceeds WSW. for 7 days across the desert to *Suleimiyah*, instead of joining the main route at Abu Jifān; it then turns almost N. and reaches Riyādh by way of Hā'ir; the total distance being about 260 miles. This variant was possibly followed by Palgrave.

The direct route chosen by Leachman runs S. of Raunkiaer's across Summān and Dahanah to the pools of *Jalta Sedeiri*, apparently about 8–10 m. SE. of Abu Jifān; thence W. to Riyādh through '*Aqalat el-Hameid*. It may be assumed that the total in general corresponds to Raunkiaer's (about 200 m.), and that the main intermediate sections are of about the same length (to *Wādi Farūq*, c. 40 m.; to first water across Dahanah, c. 90 m.; on to Riyādh, c. 70 m.); at present, however, no complete itinerary has been published. The supply of water at *Jalta Sadeiri* appears to be less constant than at Abu Jifān, and the route is in so far less important.

ROUTE 12

KOWEIT—HOFUF

Authorities: Knox, 1908, and Shakespear, 1911, compared with Sadlier, 1819; and native information.

General Direction: SSE. or S. by E.

Distance: Crow-fly, 290 miles; road, 345.

Character and Supplies: see p. 33 f.

miles.

total. stages.

KOWEIT, town; see I, p. 295 f.

Dir. SSE. across the barren desert of *Qrā'ah*.

6 m. **Dimnah**, village, 2 m. to E.; 250 houses.

2 m. *Qasr es-Sirrah*, a fortified residence, 150 ft. by 120 ft., with tower at each corner; mud walls 12 ft. high: entrance N. side; abundant water from wells, at 60–70 ft. Route now enters the sandy district of *Adān* and follows the coast.

5 m. *Faneitis*, hamlet; 6–7 wells; brackish water at 12 ft.

3 m. *Fantās*, village; 100 houses, 30 wells, some with good water at 20 ft.; 300 date-palms.

2 m. *Abu Haleifah*, village; 50 houses, 30 wells with good water at 20 ft., 1,000 date-palms.

2 m. Wells of *Themilat el-'Atwal*, 2–3 m. W. of route; sweet water.

1 m. *Faheihil*, 50 houses; 20 wells of good water at 8 ft.; 200 date-palms; sheep and goats.

25 25 *Shi'aibah*, 15 houses in ruined fort; 10 wells with good water at 16 ft.; 150 date-palms; 3 or 4 pearling-boats.

Dir. almost S. Within 3 m. the water-courses *Bahrat eth-Thaba'ah* and *Bahrat el-Jareibah* are crossed.

10 m. *Sihad 'Areifjān*, hill; good wells on NE. side; over barren plain into district of *Salū'*.

13 m. *Umm Khurjein*, a saddle-backed ridge.

Dir. SW. 3 m. to end of stage.

51 26 *Salū'*, a line of water-holes, about 100 yds. long, under four ledges of sandstone rock.

miles.
total. stages.

Dir. S. by E., a double stage through the barren districts of Salū' and Hazeim.

3½ m. *Abqai'a* and *Nibjir* hills.

4½ m. *Khabrat eth-Thamāmiyah*; bitter water.

15 m. *Athāmi*, hill, between which and coast is marsh land, impassable in wet weather, but usually dry, called *Taffat el-Athāmi*.

9 m. 'Ain el-'Abd, source of the sulphur stream *El-Magtā'*. Route now enters district of *Sūdah*.

15 m. *Shadhi*, wells; water at 6 ft.; not all drinkable.

Across a valley, with good grazing, for 7 m. to end of stage.

95 44 *Jahal*, wells with sweet water.

[For an *alternative route* from Koweit to *Jahal* (91 m.), see below, p. 107 f.]

Dir. SE. by E. : double stage.

1 m. *Sihad Jabjūb*, hill; route over bare downs for 4 m., then skirting E. side of *Taffat es-Sūdah*, a marsh except in dry weather.

9 m. *Bajsa*, wells with bad water passed, 4 m. to E.

2 m. *Abjeis*, wells, also with bad water; 6 m. to W. are the hill and wells of *Naqirah*. The ground here is sandy and sprinkled with flints.

5 m. *Inqair* (*Injair*, *Naqair*) hill, with well; 6½ m. SSW. lies flat-topped hill *Ba'al*, where Bedouins camp, bringing water from *Inqair*.

[At *Inqair* route to *Qatif* branches off to SE.]

6 m. *Khūlah*, hill, on l.

2 m. *Jō Umm Seibah*, valley. Over firm sand for 11 m. to end of stage.

131 36 *Mazharah*, water obtained from wells half-way to the *Na'iriyah* hills, which lie about 5 m. to SW.

Dir. S., gradual ascent for 10 m., then descend, after another 9 m., to

miles.
total stages.

- 19 m. *Imleijah*, walled village, with dates, palms, and tamarisks, but no permanent population. Through low hills by winding course for 4 m.
- 154 23 **Ntā'** (or **Antā'**), village of 250 houses and 3-4 mosques ; with bastioned mud walls 12 ft. high, and gates N. and S. Ntā' lies about 50 m. inland from foot of Musallamiyah Bay. Inhabitants are *Hadhar* or settled Arabs of the 'Ajmān, 'Awāzim, Beni Khālid, Muteir, Rashā'idah, and S. Shammar tribes, belonging to the Sunni sect, under an Emir who is head of all the settled population in Wādi el-Miyāh. Ntā' is said to pay tribute to the Sheikh of Koweit, who, however, does not claim the district.
- Good water, sufficient for irrigation ; wheat, barley, and maize grown ; 30 camels, 120 donkeys, 120 head of cattle ; sheep and goats.

[For an *alternative route* from Koweit to Ntā' (150 m.), see below, p. 108.]

- Dir. S. along *Wādi el-Miyāh*, over firm dark-brown soil.
- 8 m. *Sarrār*, walled village of 50 houses ; wells ; 150 date-palms. Live-stock : 30 camels, 150 donkeys, 130 head of cattle, and a few horses.
- 11 m. Dir. SE. *Thāj*, village in centre of extensive ruins, lies 3 m. to E. On for 5 m. along the wādi.
- 178 24 *Bakha*, with water from springs ; fodder abundant in spring ; fuel sufficient.
- Dir. slightly E. of S. along the wādi.
- 2 m. *Hanīdh*, wells on W. of track ; wells of 'Ala'imīyah on E.
- 12 m. *Qabeibah*, wells ; from which route ascends for 16 m. to end of stage.
- 208 30 *Dhabatīyah*, group of 3 or 4 wells, good water at 12-18 ft.
- Dir. SSE. along the wādi.
- 15 m. The wādi quitted ; route enters the district of *Habl*, a region of dark sand in which mounds alternate with depressions, bearing *markh* trees, shrubs, and grass. Track passes

miles.
total. stages.

- about midway between *Jebel Qadām* on E., and *Jebel et-Taff* on W., keeping *Jau el-Ghānam*, a tract of bare sand, on the r.
- 253 45 *Abwāb*, wells with abundant and good water.
Dir. E. by S. through *Habl*.
20 m. *Hufeirah* (*Hafeirah*), plentiful water. Track here crosses route from *Qatīf* to *Riyādh*, and enters the sandy depression of *Jauf*.
11 m. S. slopes of *Jebel Dām* skirted.
10 m. *Dumeiyagh*, wells. On for 5 m.
- 299 46 'Ain *Dār*, wells.
Dir. S. by E. over sandy desert, and along eastern foot of *Jebel Ghareimīl*.
20 m. *Qattār*, warm spring.
- 345 46 **HOFÜF**, town; see I, p. 305.

The following *Alternative Route* from Koweit to Jahal follows a well-defined track, passable for all arms, running more directly S., but 6–10 m. farther inland.

KOWEIT.

- 15 15 *Malah*, wells; good grazing and firewood; see Route No. 10, p. 94. The track continues S., leaving the hills of *Wārah* and *Burqān* on r.; several small wells passed with uncertain water-supply; then 8 m. to end of stage.
- 31 16 *Shineiti*.
Dir. S.
Knoll of *Shineiti* passed in $\frac{1}{2}$ m. Through a shallow valley with good going.
8 m. *Qrein* hill, passed 1 m. on r.; continue S. for 15 m. to end of stage.
- 54 23 *Wafrah*, numerous wells with passable water at 12 ft.; good fuel and grazing; a commanding hill, *Irhayyah*, 3 m. to W.
Dir. E. of S.
7 m. *Shadhaf* knoll passed, where sometimes there is a scanty supply of water.
Dir. SSE., keeping hills of *Miltiyayyah* and *Hufāfāt* close on l. hand.

miles.
total. stages.

14 m. 'Araq wells, with bitter and undrinkable water, but fuel and camel-grazing abundant ; good camping-ground near.

Dir. SSE., past *Tayyarah* knoll on r. and *Mareifiyu* hill on l., for 16 m.

91 37 *Jahal*, wells ; see above, p. 105 (m. 95 of main route).

A second *Alternative Route* from Koweit, which joins the main track at Ntā', is as follows :

KOWEIT.

15 m. To *Malah*, as in the first variant (see p. 107) ; thence for 10 m. through 'Adān tract.

25 25 *Laqīt*, group of 50 wells with rather brackish water at 20 ft., and extensive melon cultivation.

[A route runs SW. from here to Zilfi.]

Dir. SSE., continuing through 'Adān.

40 15 *Qrein*, an isolated hill ; wells 4 m. to SSW.

Dir. S. through *Salū'* and along W. border of *Hazeim*.

61 21 *Marāghah*, wells with indifferent water at 9 ft.

Dir. SSE., across *Hazeim* plain.

14 m. 'Arq, hill and wells with undrinkable (even dangerous) water at 12 ft. Over firm and level sand through *Sūdah* tract.

12 m. *Takhādīd*, wells with sweet water at 12 ft.

On for 11 m. to end of stage.

98 37 *Hamudh*, wells with slightly brackish water at 12 ft., lying about 6 m. SW. of *Jahal*.

[At *Hamudh* a third variant from Koweit joins the route, coming via *Subeihīyah* wells, 35 m., *Wafrah*, 28 m. ; the track then runs for 41 m. SSE. : total, 104 m.]

Dir. S. by E., across the level plain of the *Sūdah* tract.

7 m. *Najīm* wells.

13 m. *Ba'al*, hills on l., with a flat-topped main eminence used by Bedouins as a camping-ground (see above, p. 105, *Inqair*). On 12 m. to end of stage.

130 32 *Na'airīyah*, wells near the E. foot of the hill of that name.

Dir. now almost S., over undulating or hilly country, for 20 m.

150 20 *Ntā'*, village ; see above, p. 106 (m. 154 of main route).

ROUTE 13

KOWEIT—QATĪF

Authorities: Knox, 1908 (to Ntā'); native information obtained through Prideaux.

General Direction: SE. until the last stage, when it changes to ESE.

Distance: Crow-fly, 230 miles; road, 256 miles.

Character and Supplies: see p. 34.

miles.
total. stages.

KOWEIT, town; see I, p. 295 f.

For the first section of the route, as far as *Inqair*, see Route No. 12, Koweit—Hofūf, p. 104 f.

112 *Inqair* (*Injair*, *Naqair*) hill, with well.

Dir. SE. over firm level country for about 16 m. into the district of Radā'if; on for an almost equal distance.

145 33 *Tareifah*, wells, with fairly good water at 12–18 ft.

Dir. SE. through Radā'if, over firm flat sand.

4 m. *Atmah*, wells.

3 m. *Hammar*, wells.

169 24 *Mistannah*, wells, at the junction of the tracts of Radā'if, *Huzūm*, and *Jau Shamīn*, and 16 m. SW. from the foot of Musallamīyah Bay. Water at about 6 ft.

Dir. SE. through *Huzūm* into the tract of *Biyādh*.

195 26 *Wāsat*, wells and Bedouin camping-ground.

Same direction through *Biyādh*, to the eastern slope of *Mubarrakiyah* hill and on for 2 m. to the SE.

221 26 *Dasmah*, wells.

Dir. SE. through *Biyādh*.

22 m. *Abu Ma'n*, camping-ground with wells.

2 m. *Dareidi*, well.

2 m. Route enters **Oasis of Qatīf**.

3½ m. *Jadidah*, spring, whence 5½ m. through the oasis to end of stage.

256 35 **QATĪF**, town; see I, p. 307 f.

ROUTE 14

KOWEIT—ZOBEL

Authorities : Shakespear, 1911, Raunkiaer, 1912, and native information.

Direction : The general direction is a little E. of N., but in the first stage, to the end of Koweit Bay, almost due W.

Distance : Crow-fly, 72 miles ; road, 96 miles.

Character and Supplies : see p. 34.

miles.

total. stages.

KOWEIT, town ; see I, p. 295 f.

20 20 **Jahrah**, village ; see I, p. 296 f. For details to this point, see Route No. 9, p. 90.

Dir. NW.

3 m. *Mutlā'* Pass, a gap in the *Jāl ez-Zōr* hills between *Mutlā'* hill on E. and *Muteilī'ah* hill on W. Through the pass and up the valley *Jauf el-Mutlā'*, till the plateau is reached.

Dir. N. by E., through the tracts of *Zaqlah*, *Qirā' el-Marru*, and *Yāh*, over stony but level ground, passable for all vehicles.

20 m. *Bātiḥ* district entered.

3 m. *Hissu Dhabī*, two mounds passed. Route crosses several slight ridges,

4 m. the most southerly, called *Abatah*,

5 m. the most northerly, *Hamar*.

7 m. *SillJirfān*, a broad shallow depression, crossed, and route followed for 5 m. to end of stage.

67 47 *Qash'āniyah*, group of six wells with good water at 18 ft. At a distance of $5\frac{1}{2}$ m. to ESE. lie the sweet-water wells of *Umm Niqqah*.

Dir. NNW. over slightly undulating stony desert.

77 10 **Safwān**, frontier village, with a few small enclosures containing houses, and a walled date-grove belonging to the Neqib of Basra, to the E. of which was (1911) a post of 10 zaptiehs. At 1 m. to W. a Bedouin halting-place with wells of fair water at 12 ft. *Jebel Sanām* is 5 m. W. of the village.

[It is possible to travel directly N. from the *Mutlā'* Pass to *Safwān*, as Shakespear did in 1911 and

miles.
total. stages.

Raunkiaer in 1912 ; but this involves carrying water for the whole distance, and only about 5 m. are saved.]

Dir. slightly W. of N., over flat stony ground, skirting the swamps at head of the *Khôr Zobeir*, but above the ordinary flood-level.

14 m. *Rāfidhiyah*, country residence of the Neqīb of Basra ; a quadrangular enclosure with bastions at N. and S. angles, and abundant water from three wells at 12 ft. On the NE. side other wells.

Dir. N. by W. for 5 m., past a cultivated tract, *Dirhamīyah*, with rice, maize, lucerne, dates, and much live stock.

- 96 19 **ZOBELR**, a well-built walled town in Turkish 'Irāq, on slightly elevated ground ; pop. 6,000, Sunni Mohammedans. Large covered bazaar. Manufacture of saddlery and sandals. [From Zobeir an unmetalled cart-road runs NE. for 9 m. to Basra, first passing the ruins of old Basra, then for 6 m. traversing a depression sometimes flooded to a depth of 2-3 ft. by the overflow of the Euphrates near Medinah.]

The following *Alternative Route* from Koweit to Safwān is more circuitous, but parts of it are accessible from the sea :

KOWEIT.

- 20 20 **Jahrah**. See main route, p. 110.

Dir. NE. by E. through barren, stony ground known as *Sif*, between the Zōr hills and N. shore of Koweit Bay.

6½ m. *Mu'taradhah*, well.

4½ m. *Kaweikib*, about 20 wells ; brackish water at 9 ft. ; camping-ground of Muteir in summer.

4 m. *Ghadhai*, brackish wells.

2 m. *Mahraqah*, brackish well. Thence on for 2 m. to end of stage.

- 39 19 **Mudeirah** (*Mdeirah*), well of fresh water sometimes silted up in rainy weather. Over loose sand for 3 m. ; then across a mud-flat.

7 m. *Bahrah*, wells, slightly brackish.

miles.
total. stages.

- 1 m. *Mashāsh el-'Ajman*, wells.
- 4 m. *Mughairah (Mghairah)*, wells. The remaining 9 m. of the stage over undulating stony ground.
- 60 21 *Qasr es-Sabiyah*, a fortified mud enclosure belonging to the Sheikh of Koweit on the W. bank of the *Khōr es-Sabiyah*. Brackish wells outside the enclosure ; plantation of young date-palms. Guard of 12 men.
- Dir. N. by W. over undulating stony country.
- 5 m. *Shamimah*, wells.
- 1 m. *Haqaijah*, 8 or 9 slightly brackish wells by tamarisk trees and a ruined enclosure.
- 1½ m. *Akhfarūnbith*, a well in a dry water-course.
- 3 m. *'Arfajiyah* (often taken as a short stage), with numerous wells and a ruined enclosure.
- Dir. WNW., changing to NNW., over flat stony country.
- 3 m. *Mutawwa'iyah*, 2 wells with water, 3 others dry.
- 3 m. *Turfāwi*, wells ; water rather bitter, but drinkable.
- 1 m. *Haswān*, wells. 1 m. *Karādi*, well.
- 1½ m. *Zamāmi*, wells.
- 3½ m. *Subeir*, wells. On for 3 m. to end of stage.
- 85½ 25½ *Sābariyah*, numerous wells with good and abundant water.
- 2½ m. *Bahrah*, well with good and abundant water.
- 2½ m. *Baheith*, bitter well ; the well called *Umm Niqqah*, with good water, lies 4 m. to W.
- 1½ m. A low ridge crossed.
- 4½ m. **Umm Qasr**, a Turkish fort, measuring 120 ft. each way, with entrance on N. and salient on W. It is situated on an inlet on the W. side of the *Khōr Zobeir*, and has good wells 250 yards to N., by which is a favourite Bedouin camping-ground.
- Dir. WNW. over undulating stony ground.
- 8½ m. Two hillocks passed. On for 6½ m. to end of stage.
- 111½ 26 **Safwān**, village ; see above, p. 110 (m. 77 of main route).

C. CENTRAL ROUTES

ROUTE 15

HĀ'IL—BOREIDAH—[ANEIZAH]—SHAQRAH—RIYĀDH

Authorities: Huber, 1880, compared with Palgrave, 1862 (Hā'il-Boreidah). Doughty 1877 ('Ayūn-Aneizah). Leachman, 1912 ('Ayūn-Riyādh). Shakespear, 1914 (Boreidah-Aneizah-Riyādh). Native report (Cairo) on Hā'il-Boreidah, and Doughty, report on Aneizah-Riyādh, compared with Sadlier, 1819.

General Direction: SSE.

Distance: Crow-fly, 348 miles; road, 383 miles.

Character and Supplies: see p. 35 f.

miles.

total. stages.

HĀ'IL, town; see I, pp. 384 ff.

Dir. ESE. The country traversed is sandy steppe with frequent water-courses running E.

30 ? 30 ? *Idu*, watering-place, without permanent population, but with fields sown in spring, at N. end of Jebel Selmah.

Dir. ESE., across volcanic desert with basaltic outcrops.

[Palgrave's and Huber's route *viâ* Feid runs SE. to, 18 m., Jebel Fitiq, and, 9 m., 'Adwah (small enclosures; no permanent inhab.; wells, 18 ft.). Then to, 3 m., pass over Jebel Selmah by narrow difficult path obstructed by rocks, barely practicable for loaded camels. Descent through rocky country to, 21 m., **Feid**. Then through volcanic desert with basalt outcrops to, 32 m., Kehāfah. The difficulties of the J. Selmah pass cause this route to be avoided unless it is desired to call at Feid.]

68 38 **Kehāfah**, village; unwalled; 250 inhab.; small gardens; wells, 50 ft., some brackish; 'fankhah' dates are the best local variety.

miles.

total. stages.

- [Track hence SE. to Quseibah town (see I, p. 373), followed by Huber in contrary direction. Thence to 'Ayūn or Shiqqah (see below), passing *Wathal*.]
- Dir. SSE. Sandy desert of Tarmūs; cross two low ridges; then flat desert; cross two ridges and descend slightly, crossing *sha'ib* with vegetation, to
- 96 28 **Quwārah**, village (Qasim); two settlements 1 m. apart in small fertile basin; many gardens, but poor; many wells, one-third of them brackish.
- Dir. SE. Stony desert with sandstone outcrops, and coarse bush in hollows; in spring, thin grazing. Sandstone cliff (*jāl*) gradually converges on left, and under its face comes in a track from Quseibah (Route No. 6).
- 120 24 **'AYŪN EL-QASIM**; town; see I, p. 373. The following stage corresponds with the closing stage of Route No. 6; see above, p. 86.
- Dir. SE., down depression with *jāl* on left bearing away ESE., groves and small settlements under its face visible 2-3 m. away. Sandy *Sārah* steppe on right.
- 12 m. *Qara'ah*, village; two settlements 1 m. apart; 500 inhab.; wells, 80 ft., brackish.
- 2 m. Salt lake, often dry.
- 1 m. *Shiqqah*, village; 500 inhab.; large groves; wells, 40 to 50 ft., brackish.
- Gritty sand desert with sandstone outcrops; then soft *nefūd* to
- 148 28 **BOREIDAH**, town; see I, pp. 370 ff.
- Dir. SE. Through date-groves to
- 3 m. *Khadhar*, village, to right; 250 inhab.; wells, 8 to 9 ft.
- 3 m. Track to Aneizah leaves right.
- [Dir. S. Through dunes.
- 2 m. Wādi Rummah, left bank. The track crosses obliquely through palm-grove about 1 m. long; scattered huts.
- 2 m. Right bank. Then through *nefūd* for 1 m. to outer wall of **ANEIZAH** town (see I, p. 372 f.), 160 m. from Hā'il.
- From Aneizah, one long day SE. to Mudhnib

miles.
total. stages.

- town (see below), at first over *nefūd*, then stony steppe with limestone outcrops and many dry *sha'ibs*.]
- 4 m. Farther bank of Wādi Rummaḥ, 500 yards wide, by causeway, crossing water-course under cliffy right bank.
- Flat unfertile plain; *jāl* 1 m. on E.; *qasrs* scattered over plain. Wells, saltish.
- 170 22 *Aufziyāḥ*, village (owned by Aneizah); 300 inhab.; small groves and fields and little stock; wells, 5 ft.
- Dir. SSE. Steppe with water near surface.
- 3 m. A *qasr*, 1 m. right, with groves.
- 3 m. The *jāl* on E. interrupted for 2 m. *Nefūd* appears behind. Pass a *khōr*, very soft after rain.
- 183 13 **Mudhnib**, town; see I, p. 367.
- Dir. SSE. Pass W. of town, gardens lying W. again.
- 2 m. *Qasr* of Ibn Sa'ūd, sweet well and gardens.
- 2 m. Reach edge of Mudhnib depression, and garden, *Raudhat el-Bā'*.
- 2 m. Cross *sha'ib*. Flat-topped low hills.
- 195 12 *Murabba'*, village; 4 isolated *qasrs* in green hollow; 50 inhab.; wells.
- Dir. SSE. *Qasr el-Amār* 3 m. W.
- 4 m. Enter '*Ayūn es-Sirr* depression; *nefūd* 4 m. distant E.
- 6½ m. Cross *Sha'ib el-Watheilāni*. *Qasr Watheilān* 1 m. E.
- '*Ain es-Suweina*' lies 2 m. W. (this, according to Doughty, is the first stage from Aneizah by fast dromedary post).
- 3 m. *Qasr 'Ain Ibn Sabāḥ*; running water and gardens.
- 6½ m. *Qasr Ibn Nāsir*, near dry lake-bed; gardens; brackish spring.
- 217 22 '*Ain el-Jareifah*, village, sweet wells, in *sha'ib*.
- Dir. SSE. After 3 m. ascend out of '*Ayūn es-Sirr* depression to *nefūd* with grazing in hollows. Enter Woshm.
- 18 m. Leave *nefūd* and enter stony steppe with sandy patches.

miles.

total. stages.

- Dir. SE. 7 m. Re-enter *nefūd* (*Areij el-Batarah*, isolated patch).
 6 m. Leave *nefūd* and ascend towards sandstone ridge 6 m. distant; and then descend *Wādi er-Kima* gorge 100 ft. wide with 100 ft. sides.
 12 m. Enter plain with scattered *qasrs* (*Sheijar* 3 m. N.; *Fara'*).
 3 m. Descend to depression.
- 269 52 **SHAQRAH**, town; see I, p. 366 f.
 Dir. ESE. Pass N. of town and through gardens. Ascend out of depression to *nefūd* (rather stony, *Nefūd el-Woshm* or *Areij-el-Bildān*), past 3 m. a *qasr* with gardens. *Qarā'in* (*Garayin*) hamlet 2 m. S.
 10 m. Leave *nefūd*.
 Dir. SE. *Watheithiyah* village in cleft of ridge to right.
 [An *alternative track* bears away due E. over *nefūd* to plain with scattered *qasrs* and **Ghrabah** (or *Ragh-abah*), village (1,500 inhab.) and group of wells to, 47 m., **Thādiq** in 'Aridh (see Route No. 16, p. 120, and I, p. 359) and so to Riyādh. Shakespear followed this track from Riyādh in 1914.]
- 284 15 **Tharmidah**, town; see I, p. 367.
 Dir. SE. *Nefūd* on left.
 4 m. *Marrah*, village and gardens seen 4 m. SW. Bear away from *nefūd* under S. face of *Arār* ridge, which ends in isolated crag after 4 m.; *Ghrabah*, village (see above) lies about 3 m. NE.
 Enter long gravelly undulations reaching to J. Toweiq (*Tuwaiq*), visible E.
- 316 32 **Barrah**, village; 750 inhab.; wells, 40 ft., sweet; large groves and much stock.
 Dir. ESE. Ascend wādi, with precipitous limestone cliffs, towards shoulder of spur of J. Toweiq, which is passed.
 12 m. Enter gorge, 5 m. wide at mouth, narrowing to 800 yds. Vegetation on W. and E.
 Dir. NE. 5 m. reach watershed and descend gorge, here with 200 ft. sides, to *Wādi Heisiyah*.

miles.

total stages.

- Dir. E.; after a further 5 m., wādi opens out. 14 m., track from Sedūs comes in left, and ruins and gardens of 'Ayeinah begin.
- 354 38 'Ayeinah, hamlet; scattered huts among ruins and gardens extending for about 2 m.; wells.
- Dir. E. in wādi bed among ruins and old well-holes.
- 5 m. *Jubeidah*, hamlet, ruined. Continuous groves.
- 6 m. *Malqa*, village, $\frac{1}{2}$ m. N.; large gardens.
- 5 m. 'Alf (Elb), village; large gardens. Wādi bed gravelly; groves.
- 2 m. Leave wādi and ascend left by Dar'iyah, town (see I, p. 358), and over stony undulating plateau.
- Dir. SE. (for 6 m). 'Arja, village, seen $\frac{1}{2}$ m. S.
- 9 m. Reach crest of plateau. View of Riyādh. Approach through scattered groves and over sandy plain to N. gate of Riyādh.
- 383 29 RIYĀDH, town; see I, p. 357 f.

ROUTE 16

BOREIDAH—ZILFI—RIYĀDH

Authorities: Raunkiaer, 1912, compared with Palgrave, 1862 (Boreidah-Riyādh)

Shakespeare, 1914 (Zilfi-Riyādh, but by different route from 'Audah).

General Direction: E. and then SSE.

Distance: Crow-fly, 202 miles; road, 252 miles (Boreidah-Riyādh via Shaqrah, 235 miles).

Character and Supplies: see p. 36.

miles.

total stages.

BOREIDAH, town; see I, pp. 370 ff.

Dir. ESE. through date groves to *nefūd* (3 m.).

6 m. Wādi Rummah, clayey with little vegetation. Then steppe followed by *nefūd* gradually increasing in depth and softness.

- 15 15 *Shamāsiyah*, village, in clayey hollow among dunes; walled; 500 inhab.; groves; wells, 50 ft. Owned by Boreidah.

miles.
total. stages.

Dir. E. Ascend two ledges to plateau edge; cross small wādis running N. and over plain stony surface to

Abu Barkah. Cairns and other traces of Ibn Rashid's camp.

High stony desert, followed by clayey ditto with outcrops of dark rock (sandstone) and bush vegetation in hollows. Then *nefūd*.

18 m. *Hamdiyyah*, oasis; no inhab.; small grove. *Nakhil el-Abu*, ditto; no inhab., but walled groves with watch tower.

Nuqrat es-Sultān, ditto, in valley; no inhab., but small grove owned by Zilfi.

Very soft *nefūd* with high dunes running NE. and SW. and horseshoe hollows. Very little vegetation. Harder ground for 4 m. before reaching Zilfi.

48 33 **Zilfi**, town; see I, p. 368 f.

[Above was Raunkiaer's route. Palgrave's seems to have borne slightly more northerly from Boreidah to, 7 m., Wādi Rummah, and 8 m., *Raudhat er-Rubai'i* (garden settlement; 300 inhab.; wells sweet, 50 ft.). Then for 10 m. over undulating firm ground with sandy surface. Then *nefūd* for 10 m. to *Wāsīt* (hamlet in hollow with gardens and well). Then heavy *nefūd* for 7 m. and firm ground 3 m. to Zilfi. Total, Boreidah-Zilfi, 45 ? miles.]

Dir. SSE. Skirt Jumbra groves and along hollow from 5 to 8 m. wide between high *nefūd* right, and scarp of Jebel Toweiq left. Pass, 3 m., *Mughair* (or *Imghair*) *ez-Zilfi* (hot-weather station) in *nefūd* on W., and, 3 m., *Agalla* (*Agalla*) village also in *nefūd* W.; palm-clump in cleft.

15 m. Turn SE. into mouth of valley descending from Toweiq and ascend gradually to

67 19 **Ghāt**, town; see I, p. 369.

Dir. SE. Through groves 1½ m., and up gorge with 150 ft. sides to

7 m. *Jalta Ghāt*, dead end of gorge. Ascend by zigzags over spur and descend to

miles.
total. stages.

4 m. Wādi running NE. Pass in succession,
1 m. *Khīs*, village (200 inhab.), and,
2 m. *Ruweidhah*, village (350 inhab.; groves;
wells, 45 ft.). Then cross broad clayey
Mishqar valley, sloping to N., and ascend
rocky slope.

[More direct path runs E. from Ghāt gardens, and
after 2 m. ascends Toweiq plateau and, leaving
Hatabah hill N., crosses stony desert with scanty
bush to Mejma' in 6-7 hours.]

Descend stony wādi (tributary to main wādi), and
cross it to S. side.

91 24 **Mejma'**, town; see I, p. 368.

Dir. ESE. up stony wādi. Ascend spur and descend
to same wādi again.

9 m. *Jwai* (or *Ijwai*), village, seen 1 m. off road to
right.

Cross spur, passing Hatha rock 3 m. away. Cross
sha'ib and over stony desert to wādi.

110 19 **Jalājil** (or Janājil), town; see I, p. 369.

Dir. E. up side valley and over Zadihān spur to
Jalājil wādi again.

6 m. **Tuweim**, town; see I, p. 369. Pass W. of
village and gardens, and, 1 m., *Tuweim el-*
'Aud, village. Over spur to wādi again and
pass *Dākhilah* village (225 inhab.; small
gardens; wells, 50-80 ft.), 1 m. right.

S. of *Dākhilah* lies, 2 m., *Raudhah*, village
(1,000? inhab.; ruined walls and towers; large
groves; wells, 40-90 ft.) in wādi *Bātin*
es-Sedeir.

5 m. *Hasūn*, village; 200 inhab.; small groves;
wells, 45-85 ft. Follow up its *sha'ib* (= *Bātin*
es-Sedeir) flowing to *Sha'ib el-'Ajsh* (see
below).

1½ m. *Hautah*, village; 750 inhab.; large groves;
wells, 40-110 ft.

1 m. *Janūbiyah*, village; 400 inhab.; gardens; wells,
40-90 ft.

Cross *sha'ib* to

1 m. *Muqbilah*, village; gardens; and, ½ m., *'Attār*,

miles.

total. stages.

village built on both sides of the *sha'ib* (650 inhab. ; large groves ; wells, 40–70 ft.).

Cross spur to

- 128 18 **'Audah**, village ; 1,000 inhab. ; large groves ; wells 75–120 ft. Last settlement in Sedeir to southward.

[Hence a more direct, but comparatively waterless, track runs due SE. to, 118 m., Riyādh. This was followed by Shakespear, 1914. It goes down centre of Toweiq plateau to, 18 m., *Sha'ib el-'Ajsh* (pronounced locally '*Ats*), and, 18 m., *Hasi* village (150 inhab. ; fort, wells). Then over very bare country, with Toweiq ridge right and 'Urmah cliff left, two days to, 56 m., *Qasr Banbān* (30 inhab. ; wells, and a little cultivation). Thence by *Shamāsīyah* and down *sha'ib* to, 26 m., Riyādh.

Dir. S. to, 15 m., *Sha'ib el-'Ajsh*, crossing high plateau. Cross wide valley with rocky outcrops and bush vegetation, and ascend to *Thahaj* (or *Tahij*) plateau, turning SE. ; bushy steppe with *tells* scattered about.

- 155 27 **Thādiq** (pronounced *Thādiq* or *Thādich*), town ; see I, p. 359.

Dir. SSE. up wide *sha'ib* with plain on left.

7 m. Turn E. and ascend to high plateau with Toweiq ridge on right.

17 m. Descend into Wādi Wutar and keep on SE. to

- 182 27 **Hareimlah**, town ; see I, p. 359.

Dir. S. across wādi to scarp of plateau.

5 m. Ascend plateau, bare, stony, and keep on over it for 2 hours. Descend to

- 198 16 **Sedūs**, town ; see I, p. 358 f.

Dir. SE. ; ascend plateau again ; cross watershed and descend long *sha'ib* to Wādi Heisīyah-Hanifah, and through ruins and gardens to

- 223 25 **'Ayeinah**. [See Route No. 15, p. 117.]

- 252 29 **RIYADH**, town ; see I, p. 357 f.

[For the *alternative route* from Boreidah to Riyādh via Shaqrah (235 m.), see Route No. 15, pp. 114 ff.]

D. WESTERN ROUTES

ROUTE 17

HEJAZ RAILWAY

SOUTHERN SECTION, MA'ÂN TO MEDINA

Authority : W.O. Report, and information obtained by Egyptian W.O.

General Direction : S.

Distance : Crow-fly, 460 miles ; rail, 526 miles.

Character, Rolling-stock, and Supplies : see pp. 37 ff.

Dist. km. Total.	Inter- med.	Alt. ft.	Station.
0	0	3,435	MA'ÂN

Important depot, 458.8 km. from Damascus. About a dozen grey stone and red-tiled buildings on right (W.) side of line. Good water supply from well about 10 ft. deep, and also a small spring, sometimes dry. Seven sidings about 250 metres each. Engine-shed, turn-table, coal-store, and repairing shop (pit, and hand tools). Goods shed with loading platform 50 yards long. Stone water-tower with steam pump. Across road from station some shops, and stone houses of railway inspectors ; also officers' mess (ex-hotel). SW. of station, about 200 yards away, are small barracks for 500 men.

Graded and well-metalled carriage road to Ma'ân el-Misriyah

Dist. Total.	km. Inter- med.	Alt. ft.	Station.	
				<p>(or Hejāziyah) about 2 miles to W., behind double row of low hills. Town all mud-built (500 houses) except Government office in old <i>qal'ah</i> of usual Hajj-road type. Poor bazaar, large gardens (peaches, apricots, pomegranates, figs, and a few shrivelled palms). Gardens watered by wells (5 metres deep on average) and by four springs, of which the best lies above the bridge by which the station-road leaves the town. Main gardens, E. and N. of houses, are bounded by thin mud walls and towers against Bedouin raids. Water is town property, and each adult male has the right to three hours water per month for cultivation.</p> <p>1,500 yards N. of Ma'ān Misriyah is Ma'ān esh-Shāmiyah, about 200 houses. It stands higher, on a ridge along a water-bearing valley. Very large gardens, about 1 km. long in all, also walled in. Very bitter feud between the two villages.</p> <p>Barley harvest in May. Most of the corn-land is 3-4 hours away on W. Small quantity of dates and vegetables obtainable in the town. The villagers have no flocks nor cattle. The place is a great centre for the Bedouin tribes.</p> <p>From Ma'ān southward the line runs over open rolling limestone desert, thickly strewn on the surface with dark flint and</p>

Dist. Total.	km. Inter- med.	Alt. ft.	Station.
9.00	9.00		
15.86	6.86	3,273	<i>Ghadr el-Hajj</i>
28.01	12.15	3,236	<i>Bir esh-She- diyyah</i>
32.10	4.09		
38.26	6.16		

gravel, and cut up by shallow wādīs. Most of the country is fit for wheeled traffic, though some earthwork would be necessary occasionally at the wādi banks. To the N. and E. the plain extends beyond sight ; but on the W. there is a line of abrupt hills 10–15 km. off.

Railway crosses a depression on a bank pierced with about 20 small openings, none above 3 metres broad.

A stone guard-house on E. side of line ; one loop-siding of 250 yards. No water except in barrels sunk in the ground, and replenished from a tank-wagon on the train (seven barrels in 1907). A few shrubs near station. Rail follows pilgrim route closely.

Thence over open desert as before, crossing many shallow valleys over numerous culverts, none broader than 3 metres.

Stone guard-house on E. side of line, to hold ten men. One loop-siding. No natural water (seven barrels in 1907).

Thence over *hamād*, growing more and more hilly, to

Stone bridge of five 6-metre arches.

700 metres further S. is another stone bridge of four 5-metre arches.

Stone bridge of twelve 3-metre arches.

Line ascends by easy gra-

Dist. Total.	km. Inter- med.	Alt. ft.	Station.
55.25	16.99	3,740	<i>‘Aqabat el- Hejāzīyah</i>
61.25	6.00	3,700	<i>Batn el-Ghūl (Ghaul)</i>

dients. Several culverts. Country grows hillier. Very little vegetation. Shallow wādis.

Two stone buildings on W. side of line. Loop-siding of 250 metres.

Line ascends to broad col, about 3,838 ft. above sea-level, skirting a wādi; then descends more steeply, following a ravine. Soft sandstone of many colours now takes the place of limestone.

Two stone houses on E. side of line; one loop-siding; no water (six sunken barrels in 1907). Fine view down the escarpment, which for 30 miles to E. and some distance to W. is impossible for loaded camels. The line and pilgrim-road follow the only practicable way down. Cliffs in places 300 ft. high.

After the station the line runs up an incline for 400 metres, and then curves, and descends parallel to the hillside, making a wide loop to W. Average gradient, 18⁰/₁₀₀. Another curve at the end of the loop. Minimum curves, 400 ft. No bridges, but three or four stone culverts. Some cuttings in sandstone, and high banks.

After the main descent the line runs on down Wādi Rutm, which, at first narrow, soon widens into 2 miles of sandy plain. On NE. is a row of peaks, ending in the great escarpment.

Dist. Total.	km. Inter- med.	Alt. ft.	Station.
67-00	5-75		
71-25	4-25	3,222	<i>Wādī Rutm</i>
77-50	6-25		
87-75	10-25	2,765	<i>Tell Shahr</i> (or <i>Tell esh-Shahr</i>)
97-60	9-85	2,619	<i>Ramlah</i>
113-00	15-40	2,385	<i>Qal'at el-Mudawwarah</i> (Turk. <i>Mu-devvereh</i>)

On W. a row of lower hills, dividing this valley from the Hisma, the upland plateau of Midian.

Culvert, four 3-metre arches.

Two stone houses, on E. side of line, one loop-siding. No water; six barrels and stone tank unused, in 1907.

Valley widens further. Stony desert, much drift-sand. Serrated hills to W.; wide plain to E.

Line crosses a side wādī by a series of twenty-four $1\frac{1}{2}$ -metre culverts, in a high bank.

Line descends steadily. Many culverts of 1-5 metres.

One stone building on E. side of line; one loop-siding. No water; six barrels in 1907.

Low hills, 2 miles W. Many 1-5-metre culverts.

One stone building on E. side of line; one loop-siding. No water; two barrels in 1907. Railway follows open valley; much sand, some of which drifts on to the line during wind.

Very few culverts in this section. Line crosses wādī near Mudawwarah.

Two stone buildings on W. side of line. Two sidings of 250 yards each. Well yielding 5,300 gallons a day (water at 80 ft.); steam and windmill pumps. Stone water-tower, carrying two iron tanks. Disused engine-shed for two engines.

Old fort (stone) on pilgrim

Dist. Total.	km. Inter- med.	Alt. ft.	Station.	
				route, 2 miles to W. on hills. Fair well yielding 3,300 gallons a day; and an Arab encampment.
				Blockhouse. One loop-siding; 13 sunken barrels in 1907.
				Only 17 culverts between Mudawwarah and Qal'at el-Ahmar.
				About 10 km. S. of Mudawwarah are some small wādis draining into a depression with salt incrustation W. of the line.
				From km. 128 the line ascends gradually. North of Qal'at el-Ahmar, line curves E. to avoid sand-dunes.
135.57	22.57	2,469	<i>Qal'at-el-Ahmar</i>	Stone building on E. side of line; loop-siding. No natural water; 6 sunken barrels in 1907.
				Line descends by an easy gradient.
				Guard-house; 1 loop-siding; 2 tents; 4 sunken barrels in 1907.
147.50	11.93			Bridge. Five arches of 4 metres each.
149.50	2.00		<i>Dhāt el-Hajj</i> (<i>Zāt el-Hajj</i>)	Station, with 1 loop-siding and 2 stone buildings on E. side of line. Well with abundant water; water-tower, steam and windmill pump; $\frac{1}{4}$ mile E. is an old fort or <i>qal'ah</i> , on the pilgrim route, standing in a little lonely oasis on the edge of a barren plain; water is plentiful a few inches under ground. In the <i>qal'ah</i> is a well of good water 1 metre below the surface; outside is a large stone reservoir.

Dist. Total.	km. Inter- med.	Alt. ft.	Station.
173.00	23.50	2,054	<i>Bir Hurmas</i>
195.50	22.50	2,126	<i>Hazm</i>

There are about 100 palm trees, the remains of old palm gardens. The water drains into a depression to the NW.

Camp of Huweitāt Arabs.

After Dhāt el-Hajj there is, on an average, one culvert per km. for the first 10 km., and then only 1 on the next 12 km. After km. 152.50 the line ascends slowly. For the first 12 km., the country is undulating, with a line of low hills on the E. Then the line enters a plain, at first narrow like a valley, but soon opening out to a width of 9 or 10 km.

Station building on E. side of line; 1 loop-siding. Well, yielding 18,000 gallons a day; water 3 or 4 ft. below ground level. Water-tower with iron tank, fed by windmill and steam pump.

At Bir Hurmas the plain widens yet further; the ground is sandy with stony patches, and very level. The line of hills on E. ceases, and the country is flat for 50 or 60 kilometres. On W. is a line of hills, 15 or 20 km. distant. The ground drains imperceptibly eastward, where a lake (Khabrat el-Muhtatah) forms in wet weather.

Only seven culverts in this stretch.

Stone blockhouse on W. side of line; 1 loop-siding; no water.

Line traverses sandy and

Dist. Total.	km. Inter- med.	Alt. ft.	Station.	
218.50	23.00	2,200	<i>Mahtab</i>	<p>stony desert. Row of hills visible on E. with one very prominent summit, Jebel Sherura.</p> <p>Only 7 culverts on first 16½ km.</p> <p>Stone blockhouse on E. side of line; 1 loop-siding; poor well of brackish water. Several culverts N. and S. of Mahtab over shallow wādis, which drain (as do the Tebūk oasis and Wādi Ithl) into the shallow depression mentioned above. Salt flats are left by the drying water, and there is much salt in the ground everywhere till Tebūk is reached.</p> <p>Jebel Sherura, E. of the depression and about 25 km. distant, is called Mimbar en-Nebi, 'the Prophet's Pulpit', by the Bedouins, who sometimes resort to it for religious purposes.</p> <p>The Sherārāt are reported to visit the range to the E. of Sherura.</p>
233.00	14.50	2,249	Tebūk	<p>Important oasis. Railway depot. Station on W. side of line, except engine-shed on SE. All stone buildings with tiled roofs. Repair shop (hand tools), stores, triangle, guard-house. Well, 22 metres deep, yielding 90,000 gallons a day. Water-tower with two tanks, steam pump, and windmill pump. Military hospital 1 mile S. of station. On the line, 1½ km. S. of station, in the sand, is a quarantine station—a large wired enclosure each side of line.</p>

Dist. Total.	km. Inter- med.	Alt ft.	Station.

These are subdivided into small compounds in which tents are pitched. The doctors and disinfectors have wooden huts.

Tebūk village is on a slight rise SW. of station. Between the station and village is a prominent stone mosque built in 1907 by 'Abd er-Rahmān Yūsuf. Village has about 60 mud houses with perhaps 300 inhabitants. Amongst the inhabitants is Sheikh Harb of the Beni 'Atiyah. The village is enclosed in a horse-shoe of palm-gardens (about 1,000 trees), open towards the railway ; groves about 100 yards deep, and perhaps 1,000 yards long ; water everywhere, 2 to 3 metres down ; a few vines, some figs and pomegranates. On W. side of village and gardens is the *gal'ah* and spring. The former is 27 metres square, of stone, and contains a well. The spring is only a few yards away, and runs into three cemented basins ; the yield is about 10,000 gallons a day ; temperature 81° Fahr., slightly brackish. The well water is excellent. The oasis people are not Bedouins, but slaves, &c., who have settled there. There is a good view from behind the village of hills to W.

From Tebūk the line runs over a monotonous plain of open flat sand and stones with occasional scrub. After a short time

Dist. Total.	km. Inter- med.	Alt. ft.	Station.
261·00	28·00	2,743	<i>Wādi Ithl</i>
			Guard-house
285·00	24·00	2,944	<i>Dār el-Hajj</i>
296·00	11·00	3,084	<i>Mustabghah</i>

the course of the large Wādi Ithl may be traced by the tamarisk trees along its banks. This wādi and Wādi Akhdhar occasionally flood into Khabrat el-Muhtatah.

Stone blockhouse on E. side of line, and loop-siding. No water. Trees near the station.

One km. N. of the station is the longest bridge on this part of the line (143 metres); 20 arches of 6 metres each, strongly built, but only 4·50 metres high to their crown, on piers 1·5 metres thick. Deviation easy. The wādi floods, sometimes twice in a winter. There is another bridge of twelve 2-metre culverts, shortly after.

The line continues between the limestone hills, following up the valley on to a very broken plateau, with bare hill-tops and deep sandy valleys.

Loop-holed stone station building on E. side of line. One loop-siding; no water.

Country continues very broken, with ravines cutting into it. The line crosses Wādi Ghadai (trees), about 7 km. S. of Dār el-Hajj, and two other wādis, by stone bridges.

Fortified stone blockhouse on E. side of line; 1 loop-siding; no water. Station lies in a hollow.

Dist. km. Total.	Inter- med.	Alt. ft.	Station.
301.00	5.00	2,870	<i>Qal'at el-Akhdhar (or Khudhr)</i>
305.00	4.00		<i>Maqsadat ed-Dunya</i>
318.00	13.00		

The line then enters a narrow sandstone gorge, and after a deep cutting, blasted out of hard rock, passes through a tunnel, about 180 metres long, through a spur. The tunnel opens into a deep wādi with sides often precipitous.

The line follows it in a series of sharp curves (some of only 125 metres radius) on a down gradient to Q. el-Akhdhar. Between Dār el-Hajj, Mustabghah, and Qal'at el-Akhdhar the gradients are sometimes 18°/100.

Fortified station building, E. of line; 1 loop-siding. Water from well about 10 metres deep, pumped by steam pump into a cistern holding 40,000 gallons. No more water till Madā'in Sālih. Four miles SE. of the station on the pilgrim road in a narrow valley is the *qal'ah*. Some vegetation, of *rimth* and acacia, &c. Good water from well, 9–10 metres deep and 2 metres wide. Four cisterns outside the fort. Camp of Suweiflah Arabs.

The line runs on along Wādi el-Khamīs (further called Wādi es-Sāni), a waterless affluent of Wādi el-Akhdhar.

A good deal of camel-thorn and acacia.

Stone bridge of 15 arches, probably about 5 metres each in span.

Stone bridge of 15 arches, about 12 ft. high to crown;

Dist. km. Total.	Inter- med.	Alt. ft.	Station.
322.00	4.00	2,898	<i>Khamīs</i>
346.00	24.00	3,143	<i>Dizād</i>
369.00	23.00	3,185	Qal'at el- Mu'adhdham (Mu'azzam)

span probably about 5 metres each.

Near the mouth of Wādi el-Hamas. Bridge; loop-siding, and blockhouse on E. of line. No water; a few trees. The hills on the left cease, and the valley widens to 1,200 yards.

Line passes a number of acacia trees (Jenein el-Qādhi), a few kilometres up Wādi es-Sāni.

Blockhouse on E. side of line, and loop-siding. No water; some trees and bushes at the end of Wādi es-Sāni.

Thence up Wādi Mu'adhdham, a deep curving wādi, with plenty of desert vegetation and some trees. Many sharp curves, one of 128 metre radius.

Stone building on W. side of line; 1 loop-siding; no water. Old fort (no well), a few hundred yards from the station. Cistern 4 or 5 metres deep (capacity, 12,000 cubic metres); it was filled by a flood in 1907, and, when so filled, its supply may last for some years. In a plain about 1 km. wide, at the junction of the wādis. The hills on the W. are smaller than those to the E. Good view up the valley to S. Poor encampment of Suweiflah Arabs. The place is visited by Beni 'Atiyah, Billi, Aida, Shammār, Fuqara and Sherārāt. It is the station for Ha'il, which can be reached by motor in one day.

Dist. km. Total.	km. Inter- med.	Alt. ft.	Station.
394.00	25.00	3,233	<i>Khishm ez-Zanaḥ</i> (or <i>Sana</i>)
421.00	27.00	3,585	<i>Dār el-Hamra</i> (<i>Dhahr el-Hamra</i>)
445.00	24.00	3,743	<i>Matali</i>

After Qal'at el-Mu'adhdham the line enters very bare broken country, the foothills of Jebel 'Aweridh. Vegetation in Wādis Saba, 'Ashīyah, and Ghumār, but no water.

Loop-siding and blockhouse on W. side of line in a valley between steep slopes; no water. After this, a small wood of tamarisks, &c.; thence up Wādi Ghumār by an easy gradient. Very broken, tumbled hills of worn sandstone with basalt and lava outflows in places.

Stone station building, loop-holed on usual pattern, on E. side of line; 1 loop-siding; no water.

4 km. W. of the station is a ruined *qal'ah* on the pilgrim road. Well, usually dry; cistern (capacity 18,000 cubic metres), filled by flood water, is often dry, and the water at other times is generally bad.

Thence through very broken red sandstone country past Riqat es-Sa'id Pasha, and over a watershed (3,752 ft.), to

Blockhouse on E. side of line and loop-siding; no water.

Line crosses a pass through Shūq el-'Ajūz. Very broken country. Thence by gradients of 14⁰/₀₀ down to Wādi Abu Tāqah. In spite of the embankment trains are here often stopped or derailed by the sand.

Dist. Total.	km. Inter- med.	Alt. ft.	Station.	
459-00	14-00	3,139	<i>Abu Tāqah</i>	One loop-siding and blockhouse on E. side of line; no water. Very broken country, with isolated pinnacles of red sandstone and deep sand.
471-00	12-00		<i>Mushim</i>	1 loop-siding and blockhouse on E. side of line.
				Line passes through a narrow pass, skirting W. face of Mabrak en-Naqa'. Fantastic sandstone rocks worn by wind-blown sand. No water; a few trees and bushes. Descent into Medā'in Sālih plain.
496-00	25-00	2,538	Medā'in Sālih	Loop-sidings; large engine-shed; 3 stone houses; 2 blockhouses and a water-tower fed by a steam pump on W. side of line. Water about 9 metres below ground level. Repair shops, and usually a military camp.
				On the pilgrim road is a <i>gal'ah</i> , about 20 metres each way; in its courtyard is the Bir en-Naqa, 26 ft. to water. Noria wheel filling cistern of about 2,000 cubic metres; water slightly medicinal. Encampment of Fuqara Bedouins. Interesting Nabataean tombs near the line.
511-00	15-00		<i>Wādi el-Hashish</i>	Loop-siding, and stone blockhouse. (Intermediate distance uncertain.)
531-00	20-00	2,213	El-'Ala (el-'Ula)	Siding; stone station building of two stories; water-tower, and blockhouse on W. side of line, at place called Manshiyah, 3 km. S. of El-'Ala village. The station well is

Dist. Total.	km. Inter- med.	Alt. ft.	Station.
551.7	20.7	1,956	<i>Beda'i</i>
565.0	13.3	2,194	<i>Meshed</i>
576.9	11.9	1,924	<i>Seil Matara</i>
592.0	15.1	2,301	<i>Qal'at ez-Zu- murrud (or Zumrud)</i>
604.3	12.3	2,301	<i>Bir Jedid</i>
622.3	18.0	2,171	<i>Toweira</i>
648.0	25.7	1,475	<i>Muduriy</i>
665.5	17.5	1,264	Hadiyah
687.8	22.3	1,479	<i>Jedaha</i>
705.1	17.3	1,527	Abul-Na'im
721.0	15.9	1,719	<i>Istabal 'Antar (Hareimil)</i>
740.8	19.8	1,508	<i>Buweir</i>
760.4	19.6	1,583	<i>Bir Nasif</i>
775.8	15.4	1,859	<i>Bowat</i>
796.4	20.6	1,861	<i>Hafirah</i>
815.4	19.0	2,243	<i>Muheid</i>
830.3	14.9	2,096	MEDINA

sometimes violently purgative, but the water of underground canals in Manshiyah gardens is very good.

For a description of El-'Ala, see I, p. 115 f. A track leads to Wejh; see below, Route No. 31, pp. 184 ff.

From El-'Ala onwards the plate-laying, ballasting, and earthwork of the line are all bad, and the average speed in 1914 was only 15 km. per hour.

Water. Loop-siding.

Water; four wells. *Qal'ah* on pilgrim road. Line then crosses watershed (2,567 ft.).

Water; eight wells. Station for Kheibar; see below, Route No. 21, pp. 148 ff.

Water. Four hrs. to Medina by ordinary train.

Water-tower.

Village of Bowāt about 12 miles to W.

Water.

Water. Station of 17 stone buildings (single storied); turntable and sidings. For description of town see I, p. 116 f.

ROUTE 18

AKABA—MA'ĀN—JAUF EL-'AMR

Authorities : Musil, April, 1898, and Doughty, 1887 (Akaba to Ma'ān, main route); Jaussen, 1902 (Akaba to Ma'ān, alternative); Palgrave, 1862, Huber, 1883, Blunt, 1878, and Carruthers, 1909 (Ma'ān to Jauf).

Direction : NE. to Ma'ān; E. by N. to Weisit; ESE. to Jauf.

Distance : Crow-fly, 274 miles; road, 334 miles.

Character and Supplies : see pp. 41 ff.

miles.

total. stages.

Akaba, village; see I, p. 111 f.

Dir. N. along old road; *Jebel Umm Nuseilah* on r.

3½ m. *Tell Umm Jurr* on r.

1 m. *Rijm Fattih*; route now turns E. into the *Wādi Yitm* (alt. 160 ft.), which is followed for about 30 m. along the line of the old Roman road.

1½ m. *Wādi Khadhra* on r.

¾ m. *Masadd*, a stone dam crossing the valley (see below, p. 141).

1½ m. *Wādi Resāfah* on l.

1½ m. *Wādi Abul-Khurāsh* on l.

½ m. *Wādi Ruweihah* on r., marking the frontier between the 'Amrān ('Imrān) and 'Alawīn tribes.

Dir. now a little N. of E.

3½ m. *Wādi Ratwa* on r. Close to the track this wādi receives a tributary from the hills to NE., at the head of which (1½ m. from the mouth) is *'Ain Ma'in*, a good spring.

Dir. NE.

3¼ m. *Wādi Raddat el-Bāqir* on l. From this point it is ¾ m. to end of stage.

17¼ 17¼ *Moyat el-Mālhah*, a spring with good water, lies 1½ m. distant from this point, in the hills to r. It is reached in 25 minutes up a track along which it is possible to ride for the first ¼ hr.

Dir. NE.

2½ m. *Wādi Mozfar* on l. The valley here broadens,

miles.
total. stages.

and the banks of the Wādi Yitm diminish in height.

2 m. From this point a spring, *Moyat el-Khaldah*, is distant about $\frac{3}{4}$ m. on r.

1 m. *Wādi Makhlaqah* on r. (alt. 2,195 ft.).

$\frac{3}{4}$ m. *Wādi Filq* on l. The valley now opens into a broad stony plain, nearly half a mile across, bounded by steep rocks.

$3\frac{1}{2}$ m. *Wādi Abu Subeilah* on l.

$1\frac{1}{4}$ m. *Wādi Buteihah* on r.

Dir. now inclines towards ENE.

$\frac{1}{2}$ m. *Wādi Mudheifein* on l. Route has now entered the *Hisma*, a broad stony plain with sandstone outcrops and scanty vegetation, running NNW.—SSE. It is subject to raids by the Ma'zi and other sub-tribes of the 'Atiyah. From this point it is 6 m. to end of stage.

$34\frac{3}{4}$ $17\frac{1}{2}$ *Khirbat el-Quweirah* (alt. 2,340 ft.), a ruined Roman fort commanding the plain, now a Turkish military post. The fort has sides of about 55 yds., and square towers at the corners. There is a gate in the S. wall, and a large courtyard round which are numerous chambers used as tombs by the 'Alawīn. About 25 yds. from the SE. corner is a rock-hewn cistern about 40 yds. in length. (Presence of water not reported by Musil.)

$1\frac{1}{4}$ m. *Wādi Muleih* on l.; at the head of this, distant about 5 m., is a spring, 'Ain Muleih, said to be frequented by the 'Alawīn.

$2\frac{1}{2}$ m. *Wādi el-'Abid* on r., running SW.

$1\frac{1}{2}$ m. Route here leaves the Wādi Yitm, and crosses the N. part of the *Hisma* plain, changing direction to NE. by E.

2 m. *Harābat el-'Abid*, at head of the *Wādi el-'Abid*, a large cistern hewn in the sandstone, and approached through a low door with steps. (Water indicated in Musil's map, and probably present, though not definitely reported.)

miles.

total. stages.

- Dir. NE. by E., still over the Hisma, for 4 m., then N. by E. for 3 m.; *Jebel Mushrāq* on r.
- 7 m. *Wādī Shatār* (alt. 3,900 ft.), up which route turns, changing direction to NE. The Hisma now ends, and the lower slopes of *Jebel Shera* are entered. In a mile or two the track crosses a stony plain, $1\frac{1}{4}$ m. across, forming the first step to the escarpment (alt. 3,900 ft.).
- 4 m. *Naqb Shatār*, Pass, begins. Route follows an ancient road, about 10 ft. broad, winding upwards in the general direction NE.
- 2 m. *Jebel Shera*, top of escarpment (alt. 4,620 ft.).
- Dir. NE. down the gradual eastern slope, where there is more vegetation, with grass in hollows.
- $\frac{1}{2}$ m. *Khīrbat esh-Shatār*, and other ruins, passed on r. From this point it is $\frac{3}{4}$ m. to end of stage.
- 56 $\frac{1}{4}$ 21 $\frac{1}{2}$ 'Ain *Fuweilah*, a good spring near a ruined tower, at head of *Wādī Fuweilah*. (Turkish military post now (1916) reported at this place.)
- Dir. NNW., keeping the wādī on l.
- 2 $\frac{1}{4}$ m. 'Ain *Abul-Lesel* (*Lisān?*), alt. 4,190 ft.; springs flowing into a masonry tank: water abundant but insipid. About 200 yds. to WNW., ruins frequented by goatherds.
- Dir. now nearly NE., with the *Wādī Abul-Lesel* on l., through stony, undulating country said to be frequented by robbers.
- 4 m. *Khīrbat el-Mureighah* on l., ruins of a large walled town on a hill, on the W. side of which is a spring. Route keeps to r. of the *Wādī el-Mureighah* over a stony, but cultivable tract.
- 6 m. After about 6 m. the country becomes sterile and continues desert for the remaining 5 m. of the stage.
- 73 $\frac{1}{2}$ 17 $\frac{1}{4}$ **MA'AN**, station on the Hejaz Railway (alt. 3,435 ft.); see Route No. 17, p. 121.
- Dir. ENE., across extremely bare plain, or depression, scattered with black basalt.
- 99 25 $\frac{1}{2}$ *Wūq* (or *Wuqba*), several small well-pits from which

miles.
total. stages.

limited supply of brackish water may generally be obtained. [Palgrave describes this place as 'the ruined walls of an abandoned village, scattered up and down the gravelly slopes'. He struck due E. from this place for Weisit and says 'there is no water for four full days' journey'.]

Dir. ENE., continuing across bare plain, but grass begins to appear and patches increase as route proceeds.

129 30 **Bā'ir** (Bayer), excellent water from two wells of 40 ft.; in *Wādi Bā'ir*, one of the numerous water-courses which occur in the Ardh es-Sawān and trending NE. towards *Wādi Sirhān*.

Dir. E., generally, at first along S. bank of *Wādi Bā'ir*; then route crosses several other similar water-courses, all trending NE. and all dry except after rain—notably *Wādis Gharra*, *Hasa*, and *Hidrij*; in these channels are piled-up heaps of dead wood, washed down by sudden floods. Route then leads across limestone plain, scattered here and there with black flints; going very good indeed all the way, but waterless.

78 m. *Sudei*, well, but position not exactly known and details as to supply wanting.

224 95 *Weisit*, 4 openings or pools of sweet water, though yellowish in colour, situated near western edge of wādi and hidden among hillocks covered with high brushwood and a few stunted palms. The *Wādi Sirhān* is here entered; a long sinuous depression bearing in the main from NW. to SE. and reaching across half the northern desert from the Haurān to Jauf; it is the customary route for mercantile business between Syria and the Jauf; water to be found almost everywhere through wādi (except beyond *Adhāra*'), at depths varying from 10 to 20 ft.; every here and there small oases. The wādi is peopled by the Ruweilah section of the Anazah and Sherārāt Arabs, who trade in camels and sheep and possess several large encampments; *ghadha* bushes (on which camels like to feed) common along the

miles.
total. stages.

valley ; troops of ostriches occasionally sighted. Track along the wādi, arid in parts, often gravelly and frequently winding awkwardly among small sand-hills.

Dir E. for a short distance.

9 m. *Meiseri*, wells to W.

Dir. bearing round to SE.

5 m. *Nabāq* ; wells sunk in sandstone and containing good water at 11 ft.

12 m. *Helīqim*, wells, about 3 m. away, to ESE.

14 m. *Jerawi*, wells, surrounded by shrubs and bushes.

3 m. 'Arfajah, 10 wells, about 500 yards to r. of track ; 5 more at *Mashāsh* 'Arfajah, about one hour to E.

270 46 *Sheghār* (Serar), four wells ; six at *Meiqūm* and twenty at *Sebeikhah*, some distance S. ; water at all these all the year round.

Dir. ESE.

14 m. *Jerīmez*. *Jebel Sebeikhah* lies about 3 m. due S. ; monolithic hill of *Jedwah* passed to l., about 16 m. on.

22½ m. *Sha'ib Rumana* crossed ; route now runs for several miles parallel to *Jebel Adhāra'* range lying about 5 m. to N.

8½ m. *Adhāra'*, camp ; no water along remaining 20 m. to Jauf.

Dir. E. for about 9 m., then bearing gradually E. by N. *Abu Qasr*, small settlement at head of the Jauf depression.

334 64 **JAUF EL-'AMR**, town ; see I, p. 387 f.

The following is an alternative description of the route from Akaba to Ma'an, based on Jaussen's report :

miles.
total. stages.

Akaba, village.

Dir. N. across the plain.

4½ m. Ascend *Wādi Yitm*, here about 150 yds. wide ; flooded in winter.

miles.
total. stages.

Dir. E. by S.

2½ m. *Masadd*, a wall of rough-hewn stone blocks stretching across the wādi; it is 8 ft. thick, 245 ft. long, and still stands 6½ ft. high; the road passes through a gap. Pass several lateral valleys.

4 m. *Wādi Ruweihah* comes in r.

½ m. *Wādi Yitm* here bears gradually to N. by E. and the road still follows it over stony or sandy surface.

1½ m. *Abul-Heirah*; no water, but spring of 'Ain Ma'in ½ m. E.

9¼ m. *Mezra'a*, a small plain, l. of road.

27 27 *Wādi Mudheifein*, camping-place.

Dir. NNE. along the wādi. The route then crosses diagonally the long narrow Hisma plain; light, firm soil; good going.

1 m. 'Ain *Quweirah* (*Quheirah*), remains of a Roman fort on a hill, commanding the Hisma plain; a Turkish military post. Roads here branch to Petra and Medā'in Sālih.

4 m. *Jebel Meheimah* (or *Hemeimah*) passed. A small village of the same name lies ½ m. l. of road.

Dir. bears NE.

3½ m. *Jebel Mushrāq* (or *Meshāraq*) passed, and *Wādi Shatār* (or *Ishtār*) entered.

6¾ m. Foot of *Naqb Shatār*, whence the track ascends to the high plateau of the Northern Arabian desert.

2½ m. Summit of *Naqb Shatār*.

¾ m. *Khīrbat esh-Shatār*, ruins of a fort.

½ m. 'Ain *Fruweilah*, spring; ruins of a khān; Turkish military post.

53½ 26½ 'Ain *Abul-Lisān*, camping-place. Six springs here combine into a stream; the most important water-supply in the district.

Dir. NE., through monotonous and uncultivated country for some 10 m.

6 m. *Khīrbat el-Weidah*, in undulating pebbly country.

miles.

total. stages.

3 m. *Wādi Mekaffa* ; a strong spring 1 hr. E. of the road.

9 m. *Wādi Semnah*.

74½ 21 **MA'AN**, station on the Hejaz Railway.

ROUTE 19

AKABA—MA'AN—TEIMA

Authority : Akaba—Ma'an, see Route No. 18. Ma'an—Teima, Indian Govt. Road Book, from native information ; supplemented by a few details from the Gazetteer of Arabia.

Direction : NE. to Ma'an ; then generally SE.

Distance : Crow-fly, 270 miles ; road, 387 miles.

Character and Supplies : see p. 44 f.

miles.

total. stages.

Akaba village and fort ; see I, p. 111 f.

For the stages to Ma'an, see above, Route No. 18, pp. 136 ff.

73½ 73½ **MA'AN**, station on the Hejaz Railway ; see above, p. 121, and Route No. 18, p. 138.

Dir. SE., across vast limestone plain covered with black flint and intersected by water-courses which are dry except after rain ; about 5 days to next stage ; good going.

198 124½ *Hausa*, 1 well, situated in a wādi, excellent water at depth of 40 ft., but apt to run dry after much use.

Dir. SSE., through hilly country for 1 day ; across eastern spur of *Jebel Itbeik*, at elevation of about 3,000 ft. ; track then winds among sand-dunes and sandstone rocks.

243 45 *Mughairah*, several well-pits, with good water near surface, but of reddish colour ; route continues among disintegrated sandstone hills and here and there flat-topped mountains, black at summit and red at sides ; generally good going.

287 44 *Fajar*, a well containing good water, situated in valley of same name, in midst of vast stretch of barren desert ; country round about somewhat broken with sandstone outcrops ; on this account the well is difficult to locate, and it is dangerous to

miles.

total. stages.

approach owing to frequent raiding parties; going continues good, but becomes more and more barren, with scarcely any feed for camels.

62 m *Wādi Nayyal*; route now climbs escarpment about 5,300 ft. above plain.

382 95 **TEIMA**, town and oasis; pop. 1,500–2,000; alt. 3,400 ft.; see I, p. 118 f.

ROUTE 20

QAL'AT EL-MU'ADHDHAM—TEIMA—HĀ'IL

Authorities: Doughty, 1877; Huber, 1880; Huber and Euting, 1884; and Miss Bell, 1914.

Direction: E. by N. to Teima; thence generally E.

Distance: Crow-fly, 250 miles; road, 285 to 326 miles, according to route followed from Teima.

Character and Supplies: see p. 44.

miles.

total. stages.

Qal'at el-Mu'adhdham, station on the Hejaz Railway, alt. 3,185 ft.; see above, p. 132.

Dir., E. by S., across stony desert broken by a few water-courses and occasional hills.

17 17 *Jāl Umm Artah (Ortah)* passed near its N. end.

7 m. Route skirts southern slopes of *Jebel Farwah* and a neighbouring group of peaks called *Farāwi*. Near here are the defile and rock of *Hasāt el-Qanīs*, well-known landmarks.

38 21 *Wādi Jereidah* crossed, in extremely arid and stony desert region.

6 m. *Khabrat er-Ruwālah*.

54 16 **TEIMA**, town and oasis; see I, p. 118 f.

Dir. SE., crossing *Jebel Ghaneim*.

76 22 Pool of water (*khabrah*).

Continue SE. for 16 m.; dir. then changes to SE. by E. The *nefūd* is visible to the N. during the middle portion of this stage.

113 37 Valley of *Laqat*; vegetation and bad water. General dir. slightly N. of E.

miles.

total. stages.

- 11 m. Rocks of *Mehajjah* ; some pasturage. Cross *Wādi Subat* and *Jebel Helwān*.
- 5 m. Valley of *Qamrah* ; good pasturage. Cross *Kharam* ridge.
- 10 m. Valley of *Nuqrah Rukhum*. Cross ridge of *Khandhuwah*.
- 149 36 Good camping-ground on SW. side of the *Jebel Misma* range ; some pasturage.
Dir. N. for 5 m., along the western side of an outlying spur of *Jebel Misma* ; then E. by N. for 3 m. towards the main ridge ; follow SW. side of ridge for $7\frac{1}{2}$ m., going NW. by N. ; cross ridge, general dir. E. by N. (5 m.) ; then turn NE. by N. and follow base of ridge for about $5\frac{1}{2}$ m.
- 175 26 Base of *Jebel Misma*, on eastern side of ridge ; some water.
General dir. at first ESE., then E. by N., mostly across level *nefūd*.
38 m. Rocks of *Qa'as*.
Dir. S. for $3\frac{1}{2}$ m., then slightly S. of E., parallel with ridge of *Jebel Dhela'ah*.
- 230 55 *Jefeifah*, village ; wells with good water, some cultivation.
Dir. ENE., across desert and spurs of *Jebel Aja*.
[The route followed by Huber and Euting between *Jefeifah* and *Mūqaq* was not direct ; from *Mūqaq* they crossed back into the *Hā'il* valley to the western slopes of *Jebel Serra*, and then crossed *Jebel Aja* a third time to reach *Jefeifah*. From *Jefeifah* to *Mūqaq*, direct, appears to be about 20 m.]
- 250 20 *Mūqaq*, village ; meadows, cultivation and palm-groves.
Dir. E.
7 m. Rocks of *Thenilah*.
Dir. NE. along water-course into the pass of *Rī'es-Self*, a narrow cleft or valley winding through *Jebel Aja*.
12 m. Pass turns SE., and, after about 5 m., E. by S.
- 278 28 **Qafār** (pronounced by Bedouins *Jiffār*), town of nearly 3,000 inhabitants ; see I, p. 386.
[Huber and Euting did not call at *Qafār*, but took

miles.
total. stages.

a rather shorter route from Hā'il to the mouth of Rī' es-Self, passing about 2 m. to the NW. of Qafār.]

Dir. N. by E., the track gradually ascending across an extremely barren plain below the eastern slopes of Jebel Aja.

288 10 **HĀ'IL**, town; see I, pp. 384 ff.

[The above route is in the main that followed in the reverse direction by Huber and Euting (1884). It should be noted that, for purposes of adjustment, Huber's distances have been slightly increased in the first section, from Qal'at el-Mu'adhdham to Teima; his record, based on detailed observation, has been preferred throughout to that of Euting.]

The following *Alternative Route* from Teima to Hā'il was followed in the reverse direction by Huber (1880); Huber's distances have been practically retained, though in some of the long desert stages, where water is carried and camping-places are optional, some reduction is probable :

miles.
total. stages.

54 **TEIMA**; see main route, p. 143.

Dir. at first SE., past northern end of *Jebel Ghaneim*; in stony desert N. of Jebel Burd dir. changes to ESE.

97 43 Rocks of *Khūlah* (*Khōlah*); a little vegetation.

Dir. NE. for 5 m.; dir. then changes to ESE.

34 m. *Nefūd* is entered, and track turns NNE. for Qulbān.

145 48 *Qulbān*, 3 wells; water at 60 ft., drinkable.

Dir. S. by E. for 6 m.; track then turns sharply E. by S., and, after leaving the *nefūd*, keeps to the N. of Jebel 'Irnan. After passing the latter, dir. changes to SE. by E. to base of Jebel Misma.

195 50 *Jebel Misma*, which is crossed, going NE., near its northern end.

Dir. then changes to ENE.

227 32 *Mereid*, wells; bad water at 45 ft. Continue ENE.

miles.

total. stages.

- 245 18 'Abeisah, ancient wells, lined with masonry, good water ;
Mūqaq lies about 28 m. ESE. of 'Abeisah.
Dir., generally, ENE.
- 286 41 Heferah, 11 ancient wells, lined with masonry. The
track now passes round the northern end of
Jebel Aja to Hā'il.
- 326 40 HĀ'IL, town ; see I, pp. 384 ff.

The following is a second *Alternative Route* (Doughty) from Teima to Hā'il, lying to the S. of the two routes already given.

miles.

total. stages.

- 54 **TEIMA** ; see main route, p. 143. Pass between *Jebel Arbah* and *Jebel Ghaneim*, ascending towards desert ; presently keep parallel to edge of *nefūd*.
- 121 67 *Jebel Burd*, some bad water in clefts of the mountain, in waterlogged sand. Thence across sandy plains.
- 151 30 *Tharraī*, a pool, perhaps not permanent. On fifth day from Teima route crosses a pass, 4,500 ft., between *Jebel 'Irnān* and *Jebel Kharam* ; track known here as *Darb Zillaj*.
- 219 68 *Beidha Nethīl*, watering-place of many wells, belonging to the Bishr tribe in Nejd ; brackish water at a depth of from 24 to 54 ft. ; cereals grown, but there appears to be no permanent settlement, the tribes coming here annually for the cultivation and returning when the crop is harvested.
[An alternative route from Beidha Nethīl to Hā'il runs NW. to Jefeifah (50 m.), and thence by the main route to Hā'il ; see above, p. 144 f.]
Dir. NE. at first, then N. by E., across a plain with some crags.
- 249 30 *Biddīyah*, an outlying hamlet of four households in the middle of a plain ; 2 wells.
Dir. NE. by a gradually ascending track.
24 m. *Jebel Mukhtelif* passed to r., and ridge of *Jebel Aja* crossed.
- 281 32 **Qasr el-'Ashruwāt**, below eastern slope of *Jebel Aja* ; a village of the Beni Tamīm ; clay-built houses,

miles.
total. stages.

walled, and fortified with lighthouse-like towers ; pop. 250-300. In the middle of the village is a small open space, with a well-conduit ; water sweet, but lukewarm.

Dir. NE. by E. over a plain of granite grit, the track leading along the foot of the eastern slope of the Aja ridge.

289 8 **Qafār**, town ; see I, p. 386. For the short stage from Qafār to Hā'il, see above, p. 144 f.

299 10 **HĀ'IL**, town ; see I, pp. 384 ff.

The following is a third *Alternative Route* from Teima to Hā'il, and is based on that followed by Miss Bell from Bir Heizān to Hā'il ; it is the most northerly and shortest of the routes, but crosses the longest distances of *nefūd* :

miles.
total. stages.

54 **TEIMA** ; see main route, p. 143.

Dir. E. by N.

35 m. Track enters the *nefūd*.

99 45 **Bir Heizān**, well.

General dir. E., across the *nefūd*.

30 m. Track crosses low ridge.

138 39 **Qulbān**, wells. [From Bir Heizān Miss Bell took a slightly longer and more northerly course, touching Jebel Zebrān, 4 m. N. of Bir Heizān, and passing 2 m. N. of Qulbān wells, to which she diverged.]

Dir. E. by N., across the *nefūd*.

31 m. Track leaves the *nefūd* to the NW. of Jebel Misma.

Dir. E., passing N. of Jebel Misma.

18 m. Pass southern end of western *Habrān* (or *Hubrān*) ridge.

11 m. Dir. ESE., track running below northern peak of *Jebel Habrān* (or *Hubrān*).

6 m. Cross ridge of *Jebel Habrān*, after which dir. changes to slightly S. of E.

19 m. Pass N. of *Jebel Rakham*.

228 90 Water-hole (*jelib*), to NE. of *Jebel Rakham*.

General dir. E. by N.

miles.
total. stages.

- 6½ m. The *nefūd* is re-entered.
 4 m. *Shabeikān*, brackish water, with sweet water to N. of it. The track continues across the *nefūd* until after Qena.
 6½ m. Pass northern end of *Jebel Dhalu*.
 257 29 Qena, small village. [For Miss Bell's route from Qena to Hā'il round the northern end of Jebel Aja, see Route No. 1, p. 69.]
 285 28 HĀ'IL, town; see I, pp. 384 ff.

ROUTE 21

HADĪYAH—KHEIBAR—HĀ'IL

Authorities: Huber, Dec. 1879, for the route (Kheibar-Hā'il) first described; Doughty, 1877-8, for the alternative route; and native information supplied to Doughty, for the section Hadīyah-Kheibar. Neither Huber nor Doughty actually went over this latter section, nor does it appear that any other European traveller has done so.

General Direction: Huber's route, ENE. to Mustajiddah, then almost due N.; Doughty's, NE. by E., and somewhat the more direct of the two.

Distance: Crowfly, 231 miles; road, 276 miles by Huber's route, 218 miles by Doughty's (Kheibar to Hā'il). (The distances are computed from Huber's and Doughty's maps, except in those stages where they are actually stated by the traveller himself.)

Character and Supplies: see p. 44 f.

miles.
total. stages.

Hadīyah, station on the Hejaz Railway; see above, Route No. 17, p. 135.

Dir. E. by N., up the *Wādi et-Tubj* or *Wādi es-Silsilah*, a tributary of the *Wādi Hamdh*.

29 m. (or about one day's march), the *Kheibar Harrah* (which takes 4 days to cross) is reached. The Tubj valley is so narrow in places that a camel-rider can scarcely pass; going very difficult in spite of the numerous camel tracks; in most of the abrupt bends of the wādi are great pools of permanent water, with thickets of reeds, or wild bottoms

miles.
total. stages.

overgrown with *dōm* palms and other trees ; after rain in winter water sometimes comes down in violent spate ; fish are plentiful in some of the tarns, or *ghadrān* as they are locally called.

43 43 **KHEIBAR**, town ; see I, p. 119 f.

Dir. NE. by E. For about 45 minutes the route leads along low fenny lands where the going is easy. Then it mounts steeply up to the Kheibar Harrah ; the going is very bad, over large rough blocks of basalt, where the track is only lightly marked on the hard stone even after centuries of wear. The road, as far as Hāyat, is known as the *Serdeb el-Yahūd* or *Serdeb el-Kuffār* (' infidels ').

6 m. *Rujūm el-Yahūd*, twenty cairns of stones, separated by distances of from 20-30 metres, to one or other of which every passer-by adds a stone.

9 m. *Jebel Fekah*, about 2 miles S. *Wādi Suweis* soon reached ; route crosses this wādi two or three times, passing five craterous depressions which sometimes hold water.

16 m. *Ghadīr el-Megen'a*, camping-place ; a craterous depression with more or less water according to the rains. On leaving this place, the track (here called *El-'Abīr*) becomes ' a frightful path over rocking boulders of scoriae and lava '. The route is only traceable by the droppings of camels, which, in this region, every Bedouin treads into the scoriae ; this adheres to the rocks for many years, and is the only indication of the direction of the route.

85 42 *Meghrinīyah*, a camping-place in a small natural grotto ($2 \times 3 \times 1\frac{1}{2}$ metres high), between the two main peaks, *Jebel Ghaināt* and *Jebel Ghaneim*, of the long *Abyadh* (or *Beidha*) mountain chain, which runs N. and S. and forms the watershed between the Hamdh and the Rummah wādi-systems.

miles.
total. stages.

Dir. ENE., along the northern side of *Wādi Ghaneim*, by a very rough path, difficult to locate.

5 m. *Jebel Hemādah*, near *Hāyat*, comes first into view. About 20 m. on, the route begins to descend.

- 118 33 **Hāyat**, large negro village, unhealthily situated in a cleft near the heads of the *Wādi Rummah*; it is built of hewn stone, and consists of three quarters, separated by distances of 100 and 500 metres; prosperous oasis with extensive palm-groves; wheat, dhura, and barley cultivation; no cattle nor beasts of burden; water for drinking and irrigation from 3 permanent springs with apparently no variation in quantity between the wet and dry seasons; tobacco of a superior quality is cultivated.

Dir. NNE. After about one hour's march, the eastern limit of the real *harrah* is reached, but it continues sporadically for some 10 miles more; then *Zerb*, a hard argillaceous desert of almost absolute sterility, is entered.

12 m. *Wādi Makhid* crossed.

12 m. *Jebel ez-Zelf* crossed.

Dir. ENE., leading over granitic ground.

6 m. *Wādi Wāhed* crossed near *Jebel Qāhed*; thence across the *Qalanquwah* desert.

18 m. *Wādi Mebehel* crossed.

- 172 54 *Jebel Dejīyah*, or *Asmar*, camping-place.

12 m. *Wādi 'Asabah* crossed.

11 m. *Qseir*, small village of about 40 inhabitants. Another village, *Ghazālah*, a mile or so to N.

- 209 37 **Mustajiddah**, village of about 100 mud houses and 4 shops, in an oasis of palms; good water from wells at 80 ft.; district produces dates, cereals, and vegetables; see also I, p. 387.

Dir. N., along a sandy torrent bed having *Jebel Rummān* to E.

7 m. *Jebel Sebeikhah*, a hill of red granite is passed; a few palm-plantations at the foot.

Dir. N. by E.

miles.
total. stages.

18 m. *Sirrah*, at the foot of *Jebel Sirrah* W. of route ; wells of sweet water.

Dir. N. by E. for about 8 miles ; then, bearing N., the route leads for about 18 miles over a stony track cut up by dry water-courses.

26 m. *Arkān*, camping-ground with water, at foot of *Jebel Arkān*.

9 m. The town of *Qafār* (see above, Route No. 20, p. 144) lies about 4 miles to W. of route ; from this point track passes along water-courses and among hills.

276 67 **HĀ'IL**, town ; see I, pp. 384 ff.

The following is an *Alternative Route* (Doughty), from Kheibar to Hā'il :

miles.
total. stages.

KHEIBAR, town (alt. 2,800 ft.) ; see I, p. 119 f.

Dir. NE. by E. up the fenny bottom of the Kheibar valley, to the *harrah*, keeping N. of *Jebel 'Atwa* ; the track goes over the volcanic plain, constantly ascending for the first 50 miles, and keeping near the north-western edge of the Kheibar Harrat ; going very hard and difficult.

54 54 *Shotb* (alt. 5,428 ft.), a deep cleft in the *harrah*, into which the track descends ' by shelves and ledges ' ; gum and acacia trees in the ' bottom ' ; thence the route descends very gradually as far as *Biddiyah*, which appears to be the lowest point between the *harrah* and Hā'il.

8 m. *Jebel Ethnān* (Thinān), a peak N. of the track, on the *Ethnān Harrah*.

18 m. *Hilyān*, a district of black crater-hills and crests, which the track crosses.

Dir. NE., over country which is described as ' like a rolling tide of basalt '.

30 m. (about), the main north-eastern edge of the *harrah* is reached, but it continues intermittently for some few miles beyond.

120 66 *Ibba Suleimān*, watering-place ; thence the route passes over a gritty granitic plain. An altitude of

miles.
total. stages.

6,000 ft. is reached in this section, and is mentioned by Doughty as 'the greatest height he had passed hitherto in Arabia'.

138 18 *Beidha Nethil*, watering-place.

[For the section from *Beidha Nethil* to *Hā'il*, 80 miles, see Route No. 20, p. 146 f.]

218 80 **HĀ'IL**, town; see I, pp. 384 ff.

[Doughty, on another journey, followed a track from *Hilyān* to *Qasr el-'Ashruwāt* (18 m. from *Hā'il*; see above, Route No. 21, p. 151) somewhat south-east of the above, the stages being as follows: 21 m., *Jebel Habrān*, a peak in the northern end of the *Kheibar Harrah*; 5 m., *Beidi*, a summer station of the *Sibā'*, with two ancient well-pits; 7 m., *Jebel Bothra* (*Būshra*), thence across a district called the *Sha'bah* (a plain of gritty sand with pasturage of short coarse grass); 60 m., *Jussa*, a hamlet of six households, to which the tribes come for 3 months of the year to raise crops and then return; 10 m., *Aqillah*, another outlying corn-settlement; 24 m., *Qasr el-'Ashruwāt*.]

ROUTE 22

MEDINA—HĀ'IL

Authority: Doughty, 1877-8; and Persian Gulf Gazetteer, 1908.

Direction: NE. by E.

Distances: Crowfly, 243 miles; road, 275 miles.

Character and Supplies: see pp. 45 ff.

miles.
total. stages.

MEDINA, town; see I, p. 116 f.

- Dir. E., across a barren, undulating, stony plain.
4½ m. *Abu Rasheid*, settlement with a large mosque; irrigation by water channels; thence over level desert.

miles.

total. stages.

3 m. Enter narrow valley with sandy bed ; acacia trees here and there.

Dir. NNE.

- 32 32 *Sābiyah*, camping-ground at the mouth of the valley ; one small well, with sweet water at 30 ft. ; thence across an undulating, stony plain.

Dir. NNE.

5 m. Route descends for about two miles and then traverses a clayey plain.

10½ m. Beginning of a three-mile ascent, by a very narrow path, which leads to a dusty plain.

- 53 21 *Shaqrāh*, a number of small wells (with fresh water at 12 ft.) in argillaceous soil ; they are surrounded by acacia and other trees. Over a stony plain.

Dir. NNE.

3 m. Ascend a scarp to another stony plain.

4 m. Enter a saline desert with occasional stony patches.

- 69 16 *Nakheil*, small village among some date-palms ; a number of wells with sweet water at 18 ft.

Dir. NNE., for a short distance ; then NE. along a narrow valley intermittently sandy and stony. At about mid-way on this stage, *Henākīyah* (see Route No. 24) lies from 7 to 8 m. away on the right.

- 98 29 *Halq er-Rī'*, camping-ground at the end of the valley ; thence the route crosses an undulating, sandy and stony plain. (The Indian Government Map appears to indicate that the south-eastern portion of the *Kheibar Harrah* is entered at about this place and that the route traverses it almost to *Haleifah*.)

10 m. *Karayīyah*, situated among hills ; wells of sweet water at 18 ft. ; thence through country similar to that traversed in the preceding stage.

- 130 32 *Sufeit*. Route leads over a plain, partly saline and partly strewn with black stones ; occasional ridges are crossed.

- 150 20 *Haleifah*, small village ; good water from wells in the clay, at 24 ft.

miles.
total. stages.

Dir. NE. by E., skirting the northern face of a range of reddish hills, and leading over level hard sand, scattered with pebbles, and intersected by occasional wādi-depressions.

- 175 25 *Sileimi* (*Suleimi*), altitude 4,053 ft.; a desert village among a few palm-trees; camping-ground under *Jaul Sileimi*.

Dir. ENE., over an undulating plain of pebbles, stones, and hard sand.

14 m. Enter narrow valley with water-course, which track follows, crossing the water-course occasionally.

- 208 33 **Mustajiddah**, village; see above, p. 150.

[For the section from Mustajiddah to Hā'il (67 m.), see Route No. 21, p. 150 f.]

- 275 67 **HĀ'IL**, town; see I, pp. 384 ff.

ROUTE 23

MECCA—HĀ'IL

Authorities: For the section to Hāthah, see Route No. 29. To Mustajiddah, the Persian Gulf Gazetteer, 1908, in which section the details of distance and direction must be accepted with great reserve. From Mustajiddah to Hā'il, Huber, 1877-9.

General Direction: NNE.

Distance: Crowfly, 435 miles; road, 479 miles.

Character and Supplies: see pp. 45 ff.

miles.
total. stages.

MECCA, town; see I, pp. 123 ff.

Dir. NE. by N.

[For alternative descriptions of the section of the route from Mecca to Hāthah, see Route No. 29, pp. 173 ff.; that of the Egyptian W. O. Itinerary (145 m.) is here adopted.]

- 145 145 *Hāthah* (Hadda), wells in a valley, with sweet water at about 48 ft.; corn-fields and some date-plantations; a few ruined *qasrs* in neighbourhood.

- | | miles. | |
|--------|---------|--|
| total. | stages. | |
| | | Dir. NNE. through a broad valley ; the track runs for about 10 m. over boulder-strewn ground, and for the rest of the stage over a saline plain. |
| 172 | 27 | <i>Sabkhatein</i> , a camping-ground on a level saline plain, without water. Here is a rough arch formed by a rock resting on two others, through which a loaded camel can pass. |
| | | Dir. NE., continuing over the saline plain, here dotted with acacias ; there are hills on either side. |
| 207 | 35 | <i>Ras es-Sabkhah</i> , the head of the saline plain ; no water. |
| | | Dir. NNE., entering and following a narrow, rocky and stony valley. |
| 221 | 14 | <i>Jireisiyah</i> (or <i>Jarisiyah</i>) ; numerous wells, with sweet water in some at 6 ft. |
| | | Dir. NNE., continuing along the narrow valley. |
| 245 | 24 | ' <i>Amaq</i> , well with sweet water at about 40 ft. |
| | | Dir. NNE. The track leaves the valley and traverses a level plain, partly of clay, partly saline and covered with pebbles. |
| 278 | 33 | <i>Wādi Hamdh</i> . Camping-ground in the wādi ; water after rains. |
| | | Dir. NNE., over a plain cut up alternately by water-courses and ridges of sand bearing acacia trees ; then along a broad valley between low hills. |
| 300 | 22 | <i>Abu Mughair</i> , 10 wells with good water at 24 ft. |
| | | Dir. NNE., for about 14 m. over a stony plain ; then for several miles among boulders ; the remainder of the stage is over desert. |
| 338 | 38 | ' <i>Ajājah</i> , some 10 wells with sweet water at about 24 ft. |
| | | Dir. NNE., continuing over a desert plain and passing the wells of <i>Qanah</i> E. of the road. |
| 381 | 43 | <i>Sileimi</i> camping-ground, without water, situated about 3 hrs. S. of Sileimi village. |
| | | Dir. NNE., over a plain of clay. |
| 412 | 31 | <i>Mustajiddah</i> , village with good water ; see above, p. 150. |
| | | [For the stage from Mustajiddah to Hā'il (67 m.), see Route No. 21, p. 150 f.] |
| 479 | 67 | HĀ'IL , town ; see I, pp. 384 ff. |

ROUTE 24

MEDINA—RASS

Authorities: For this route, linking N. Hejaz and Qasim, there is no recent authority. What follows is deduced from Sadlier's narrative, 1819, compared with an itinerary given by Burckhardt and reports of French officers in Ibrahim Pasha's service in the Wahabite War of that time. It is impossible to indicate convenient stages throughout.

General Direction: ENE.

Distance: Crow-fly, 260 miles; road, 285(?) miles.

Character and Supplies: see p. 46 f.

miles.
total, stages.

MEDINA, town; see I, p. 116 f.

Dir. generally NE. by N.

The route at first follows Route No. 22 (see above, p. 152), but the precise point at which it branches off to Rass is not definitely indicated by any authority; the Persian Gulf Gazetteer states 'probably Shaqrah' (cf. also Hunter's map). The following is Sadlier's description of the road from Medina to Henākiyah: After crossing the barren Medina plain, the track runs through a sandy plain affording some pasturage, and then over a rocky mountain road; at about 50 m., it descends into a rocky ravine with some trees and plentiful water; after entering a valley, it emerges upon a barren gravelly plain bounded by rocky hills; it then traverses a broad plain covered with loose stones, and, finally, crosses a ravine (possibly Wādi Hamdh).

- 85 85 *Henākiyah*, village of about 40 houses in Wādi Hamdh. Forage and good wells, water at 60–90 ft. (In 1818, 800 cavalry, 900 infantry, and 3 guns halted here for 25 days.)

23 m. Cross low range of hills.

Dir. ENE. generally through isolated rocky hills.

25 m. Track crosses valley running NW. to SE., with some wells.

- 153 68 *Jebel Mawīyah*; camping-ground to the W. of the hill.
Dir. E., round N. side of *Jebel Māwīyah*.

	miles.	total stages.	
175	22		<i>Mashāsh Bātin el-'Urmah</i> ; water after rain obtained by digging. Dir. E. by N. following a torrent bed, then crossing gravelly plain.
205	30		<i>Wādi el-Miyāh</i> , liable to inundation. Regular halting place at wells of <i>Bajir</i> , WSW. Route first crosses sandhills, then a gravelly plain with scattered bushes, bounded on the S. by rocky hills.
225	20		<i>Jirzawiyah</i> , wells in a hollow. A line of hills running N. and S. is crossed; the track then passes through a grassy valley and traverses a plain. Dir. E. by N.
252	27		<i>Uddas</i> , wells. Dir. E. by N. across the plain. 15 m. <i>Matta</i> , enclosure with a few families of cultivators; wells; two deserted hamlets. Track skirts rocky hills (Jebel Abanāt?).
285	33		Rass , town; see I, p. 373.

[The above distances can be regarded as approximate only. They are based on the time apparently taken by Sadlier, on the assumption that the pace was generally $2\frac{1}{4}$ miles an hour. The positions in Hunter's map of Henākiyah, Jebel Mawiyah, Bātin el-'Urmah, and Jirzawiyah also rest on this hypothesis.

Burckhardt's itinerary gives the time from Medina to Rass as 105 hours, exclusive of halts. His pace appears to have been, in general, about $2\frac{1}{4}$ miles per hour. The distance to be inferred from his time does not therefore differ much from that which appears to be given by Sadlier.

Burckhardt mentions the following places and times, the figures giving the total number of hours from Medina:

MEDINA.

hour.

- 1 *'Areidh*, tomb of a sheikh; well (Bir Rashīd).
- 4 *Hafna*, in the bed of a torrent.
- 23 *Soweidir*, in a valley; wells and date-trees.
- 27 A valley; wells and *dōm* palms.

hour.

- 34 *Henākīyah*, many pools and wells (cf. p. 156).
 40 After a sandy plain, *Abu Khesheib*; good well water.
 52 *Heimej*, sweet and saltish water. [The 'Derah of Hameej' passed by Sadlier.]
 60 *Māwāt* [=Jebel Mawiyah?]; very good water; in an inlet of the mountains.
 76 *Ba'jah* [=Bajir?]; trees and herbage, and wells.
 79 *Nefūd* [clearly not a place-name but a description, *nefūd*].
 A plain of deep sand 4 hours long.
 93 *Jerdāwiyah* [=Jirzawiyah], a plain with good wells.
 100 *Dhāt* [=Uddas?], 'the first town of Qasim'.
 105 **Rass.**]

ROUTE 25

MECCA—QASĪM [ANEIZAH, BOREIDAH]

Authorities: Native information compared with Doughty, 1878, and Huber, 1884.

General Direction: NE.

Distance: Crow-fly, to Boreidah, 446 miles, to Aneizah, 437 miles; road, to Boreidah, 479 miles, to Aneizah, 477 or 496 miles, according to the route traversed.

Character and Supplies: see p. 46 f.

A. MECCA TO BOREIDAH (PILGRIM ROUTE OR DARB ES-SULTĀNĪ)
 miles.

total. stages.

MECCA, town; see I, pp. 123 ff.

Dir. NE. by well-marked road, passing Jebel en-Nūr.

9 m. Leave the 'Haram' area; the spot is marked by 2 posts, 25 yds. apart, known as the '*Alamein*.'

- 40 40 '*Ain ez-Zeima*, hamlet (alt. 2,250 ft.); water; some cultivation.

Dir. NE.

- 70 30 *Seil*, stream and considerable vegetation.

Dir. NE. Ascend steeply to *Ri' es-Seil* (alt. 4,950 ft.).

- miles.
total. stages.]
- 98 28 'Asheirah (alt. 4,400 ft.); 12 wells, good water at 18 ft.
Dir. NNE.
9 m. 'Arf, ridge running N. and S.; then over the *Qishab Harrah*.
39 m. *Hilyān*.
15 m. *Digheibiyah*, 20 wells.
- 164 66 *Marrān*, wells, good water.
15 m. *Dahalah*, a halting place without water. Track then crosses the stony *harrah*, or lava field.
- 204 40 'Iqbah, within the *Qishab Harrah*; 60 wells, good water at 8 ft.
Dir. ENE.
14 m. Route leaves the *harrah* and bears NE.
- 240 36 *Dafinah*, 8 or 9 large wells, good water; they are wide and difficult to draw from, and need a double rope. Caravans often do not pass here.
Dir. ENE. ascending for 4 m., then descending.
11 m. *Majrūr* or *Majzar*, a valley running N. and S.
Dir. continues ENE. over stony desert, *Hazam er-Rāji*; the track passes 2 m. W. of peaks called *Dhinā'ib*, a landmark and watering-place.
- 281 41 *Ghathmah*, 10 large wells, brackish water.
Dir. NNE. over a slightly ascending plain, possibly passing *Khadhārah* (brackish water); the track then runs over level desert.
- 300 19 *Sha'b el-'Asibiyāt*, many wells, with water at 5–15 ft., at head of valley running N.
Dir. NNE., crossing *Wādi Shabrām* (half-way between Mecca and Boreidah).
- 330 30 *Sufwīyah*, numerous wells with brackish water.
Dir. NNE. Pass between ridges, W. of *Jebel Sa'ar*.
- 357 27 *Dhariyah*, village with cultivation; 20 wells with water at 40 ft.
Dir. at first NE. then N. by E., over scattered hills and afterwards across plain.
- 397 40 *Shabeiqiyah*, wells, water plentiful; no village.
[The position of *Miskah*, mentioned in native information, is uncertain; Doughty places it 10 m. W. of route, NW. of *Shabeiqiyah*, and says it has less than 50 houses.]

miles.

total. stages.

435 38 **Rass**, town ; see I, p. 373.444 9 **Khabrah**, town ; see I, p. 373.

Dir. NE. Track at first follows Wādi Rummah, which is afterwards left.

461 17 *Shabībīyah*, small village, with ten *qasrs*, in corn-growing district ; water good and abundant ; no palms nor other trees.

Dir. NE. After 7 m., cross Wādi Rummah.

479 18 **BOREIDAH**, town ; see I, pp. 370 ff.

B. MECCA TO ANEIZAH (DOUGHTY AND HUBER)

MECCA, town ; see I, pp. 123 ff.

[For the section from Mecca to 'Asheirah (98 m.) see above, Route A, p. 158.]

98 98 'Asheirah.

Dir. E. by N. across a gravelly plain.

32 m. Route passes between two mounds, known as *Ibraḡein*.33 m. Pass W. of *Radhwān* ridge ; thence over saline plain, E. of lava bed (*harrah*).207 109 *Muweih Hakrān*, many wells with water at 12 ft. Cross arid desert, *Ruqbah* ; average elevation 4,200 ft.

Dir. NE.

224 17 *Hazeim es-Seid*, a grove of acacias ; poor water in cattle-pits ; according to Huber, 100 wells with water at 1 metre.

Dir. NE.

255 31 *Qulbān Ibn Haddāf*, 4 wells with good water at 90 ft.Dir. NE., over saline plain, passing E. of *Jebel Khāl* (a conical hill said to be half-way between Mecca and Aneizah) to *Muwāfrid Shurmah* (alt. 4,040 ft.), shallow wells with bad water. Track thence crosses the 'Daika', an open plain.305 50 *Sijah*, 3 wells ; poor water, difficult to draw, at 50 ft.Dir. NE. The track crosses Wādi *Shabrām*.12 m. Pass W. of *Jebel 'Adūlah*.

327 22 'Afīf, well (alt. 4,615 ft.), masonry lined ; fair water at 60 ft., said to be enough for 2,500 people ; some pasturage.

Dir. NE., passing considerably W. of *Jebel Nīr* over open country dotted with acacias.

- miles.
total. stages.
- 357 30 *Umm el-Mashā'ib* (alt. 4,500 ft.), line of reddish peaks with camping-place at foot ; no water.
Dir. NE.
- 384 27 *Shi'ab*, a hill with watering-place called *Kebshān*. All this district bears pasturage and a few trees ; there is annual rain.
Dir. N. by E., passing at 13 m. wells of *Ghaul* or *Ghöl*, stone-lined, with good water at 12 ft. ; good pasturage. The track thence passes W. of *Jebel Minei'ah*.
- 409 25 *Farqein*, a camping-ground under a small hill.
Dir. N. by E., passing over basaltic country to the east of *Jebel Umr* (Amrah), a conspicuous hill.
• 10 m. *Rukkah*, a square fort and brackish wells ; thence the track descends gradually.
- 424 15 *Kir*, a halting-place under a hillock, N. of *Jebel Khazāz* ; no water. *Dukhnah* wells (see below, p. 163) lie 3 m. W.
Dir. NE. over rock-strewn plain.
9 m. *Umm Teyyah*, a few hovels and some water and cultivation. The town of *Rass* lies about 6 m. W.
- 449 25 *Hejnāwi*, a few hovels ; fuel and grazing obtainable.
Dir. NNE.
- 469 20 *Shabībīyah*, small village ; see above, p. 160.
Dir. N., afterwards changing to NE.
4 m. *Wahān* ; enclosures in plantations and fields ; water plentiful.
Continue NE. across desert.
- 477 8 **ANEIZAH**, town ; see I, p. 372 f.

C. MECCA TO ANEIZAH (HUBER'S ROUTE FROM UMM EL-MASHĀ'IB TO SHABĪBĪYAH)

MECCA, town ; see I, pp. 123 ff.

[For the section from Mecca to *Umm el-Mashā'ib*, see above, Route B, p. 160 f.]

- 357 357 *Umm el-Mashā'ib*, camping-place ; see above, p. 161.
Dir. NE. by E. through very sterile desert, passing *Jebel Qaliyah*, an isolated peak close to track on r., and leaving *Jebel Nir* 6 or 7 m. to E.

miles.

total. stages.

- 4½ m. Two peaks, also known as Umm el-Mashā'ib, passed 2 m. W.
 6 m. Pass *Kūdah* peak 1½ m. to SE.
 3 m. Pass 'Arā'is peaks ½ m. to E.
 1 m. *Wādi Ghathāth* crossed and the *Ma'allaq* desert entered.
 4½ m. *Jebel Khafa*, a line of sugar-loaf peaks, passed to l. ; at their foot there are rain-pools.

Dir. NE. by N. continuing across the *Ma'allaq* desert.

- 382 25 *Ma'allaq* ; camping-ground, no settlement.

The route immediately crosses a rocky ridge and enters the desert of *Kabushāt*, which is covered with small, sharp, basaltic stones, very trying for camels. From this point, for some 13 m., the route lies parallel to the *Kabushāt* chain of hills, distant about 5 m. W. Among these hills are the 20 wells of *Kebshān*.

Dir. continues NE. by N.

6 m. Cross *Wādi Jehām*, running E. and W.

7 m. *Jebel Jalwah* is passed, a mile or so E. of the track.

- 397 15 *Shibirmah*, 20 wells with good water at about 20 ft.

Dir. N. generally, leaving the *Kabushāt* desert and ascending.

2½ m. Enter the *Rī' Hillit*, a long defile in volcanic country, and descend.

- 407 10 Camping-ground at the end of the defile, at the foot of *Jebel Hillit*.

9 m. Cross a rocky ridge and turn NE. by E.

10 m. Cross a ravine.

Dir. soon changes to NE.

3 m. The track comes abreast of a ridge of rocks to E., which it passes for about 4 m.

6 m. A tract of country is entered where there is good grazing.

3 m. Cross a ravine to a plain covered with granitic stones and pebbles.

2 m. Pass abreast of the southern extremity of the *Jebel Khazāz* chain, which lies to W. of route.

- miles.
total. stages.
- 442 35 *Dukhnah* (or *Ibn Rashid*), a chain of some 40 wells spread over a length of about $1\frac{1}{2}$ m.; good water at 20–25 ft.; much frequented by the Ateibah.
Dir. continues N. by E.
1 m. *Sha'ib Dukhnah* crossed.
5 m. Pass abreast of the northern extremity of *Jebel Khazāz*.
- 463 21 Camp in desert; *Ablah* well lies about 6 m. E.
Dir. NE. by N., through granitic country.
3 m. Cross a ravine.
 $4\frac{1}{2}$ m. *Ramah*.
Dir. generally N. by W., across the gravelly and sandy desert of *Hejnāwi*.
 $14\frac{1}{2}$ m. The track leaves the desert and enters country where some grazing is obtainable.
- 488 25 *Shabībīyah*, small village; see above, p. 160.
[For the half-stage from *Shabībīyah* to *Aneizah*, see above, Route B., p. 161.]
- 496 8 **ANEIZAH**, town; see I, p. 372 f.

ROUTE 26

MECCA—RIYĀDH

Authorities: Native information (*Sijah-Barrāh*); see Route No. 25, ii (Mecca-Sijah) and Route No. 15 (Barrāh-Riyādh).
General Direction: NE., then E. and SE.
Distance: Crow-fly, 480 miles; road, 556 miles.
Character and Supplies: see p. 47.

miles.
total. stages.

Mecca, town; see I, pp. 123 ff.

[For the first section of the route, from Mecca to 'Asheirah, see Route No. 25, I, p. 158 f.; and for the section from 'Asheirah to Sijah, see Route No. 25, II, p. 160.]

305 305 *Sijah*, 3 wells; see above, p. 160.

miles.

total stages.

- Dir. NE. ; gradual descent through basaltic and then granitic country.
- 355 50 *Jebel Nir*. The drainage of the desert gravitates to the depression surrounding this hill, and there are several groups of wells; the best is *Hanābij*, which is said to comprise 200 borings, with good water at 6 ft.
- Dir. N. of E. Pass between *Jebel Nir* on right and *Shi'ar* and *Shi'abah* hills on left. Well of 'Afīf lies in hollow between *Dhula'an en-Nir* and *Shi'ar* hills.
- 9 m. Pass NW. of *Jebel Nir* and S. of *Jebel Nadhādiyyah*, over level desert.
- 382 27 *Khanūqah*, hamlet ; 20 wells with good water at 40 ft. ; cultivation.
- Dir. N. of E., over level desert.
- 394 12 *Sha'arah*, village of 100 houses ; many wells with good water at 50 ft.
- 409 15 *Duwādimi*, walled village ; groves ; many wells with water at 50 ft.
- Dir. N. of E., over stony, sandy country.
- 437 28 *Mekeinah*, 40 wells, good water at 50 ft., on edge of *nefūd*.
- Dir. E. over *nefūd* for 10 miles ; then plain of *Marutah*. 20 m. Enter stony plain.
- 475 38 *Shameisah*, hamlet ; wells, water at 20 ft. ; *Shams*, hamlet, 1 m. distant.
- Dir. slightly S. of E.
- 489 14 **Barrah**, village ; see above, p. 116.
[For the section of the route from Barrah to Riyādh, see Route No. 15, p. 116 f.]
- 556 67 **RIYADH**, town ; see I, p. 357 f.

ROUTE 27

MEDINA—MECCA

(Darb es-Sultāni)

Authorities: Burekhardt, 1815; compared with Egyptian War Office Itinerary, 1916, and Sadlier, 1819.

General Direction: SSW. and SSE.

Distance: Crow-fly, 220 miles; road, 285 miles. Burekhardt only gives times between stages. The distances given below are computed from his times on the basis of 2 m. per hour (mainly night marching) for the hill section of the route to about Bir esh-Sheikh, and 2½ m. along the plain beyond.

Character and Supplies: see p. 47.

miles.
total, stages.

MEDINA, town; see I, p. 116 f.

Dir. W. by S.

The track passes some distance W. of *Bir 'Ali*, which consists of a few houses around a well and a small date-plantation, and ascends a chain of mountains over ground covered with flints. [Sadlier places Bir 'Ali 3 m. W. by S. of Medina; the Egyptian War Office Itinerary places Ab'ar 'Ali about 7 m. from Medina in the same direction.]

6 m. The summit is reached and the route descends through rocky valleys full of thorny trees, crossing several water-courses; it then enters the *Fereish* plain.

[According to Route No. 33, II (see below, p. 192), *Wādi 'Aqīq* is entered 3 m. from Medina, and *Silsilah* plain 2 m. farther on.]

21 21 *Fereish* plain, camping-place.

Dir. WSW., the track soon leaving the plain and running across rocky ground.

5 m. Enter *Wādi Shuhada*, a broad straight valley covered with white sand, with an easy descent. Track passes the ruins of a small mosque, some little distance on.

8 m. *Sha'b el-Hāl*, a small plain between mountains, is entered.

Dir. SW. by W.

miles.
total. stages.

- 5 m. Mountains entered. In this section the route passes through a defile, where, for 20 yds. or so, it is necessary to go in single file.
- 2 m. The mountains are left and *Nāziyah plain* (10 m. by 6 m.) is entered.
- 44 23 *Nāziyah plain*, camping-place. The plain is thickly covered with acacia trees ; good water is obtainable on the slopes of the mountains fringing the plain, but not in the plain itself.
- Dir SW. by S. On leaving the plain the route enters a wide, winding valley (the *Wādi Medeiq* of Route No. 33), which it follows by a gentle descent. Then the valley narrows and takes the name of *Wādi Jedeidah*.
- 9 m. *Kheif*, situated at the head of *Wādi Jedeidah*, the first of a series of villages and hamlets passed in this wādi. It is described as 'one of the most important positions in Hejaz, because it is the only way by which caravans can proceed from Mecca, or Medina, to Yambo'' (see Route No. 33, p. 188).
- Dir. SW. The wādi becomes still narrower, and for some distance the track is dangerously commanded from the hills ; then the wādi straightens and descends sharply.
- 55 11 *Jedeidah*, a long straggling village, situated at the end of *Wādi Jedeidah* ; springs of fairly sweet water.
- Dir. SW., slightly by S., along a barren winding valley about 300 yds. across.
- 4½ m. *Muq'ad*, village with date-groves.
- Dir. bears S. by W., the track descending a stony valley for about 3 m., and then running over level ground.
- 63 8 *Hamra*, a village in a *fumara* of red-coloured sand (hence the name), built upon a narrow shelf between a high steep hill and the sandy wādi bottom, here about ½ m. wide ; houses of unbaked brick and mud half in ruins. The village is guarded by a fort with crenellated walls and loop-holes, and there are several watch-towers on the hill-crests along the valley on both sides.

miles.
total. stages.

There is a small *sūq*, where fair supplies of bread, rice, butter, and cheap grain may be procured. Good water is obtained by digging a few feet below the surface in the bed of the *wādi*; and a fine spring rises from the base of the hills to the S. There are considerable flocks of sheep and goats, and plantations of dates and bananas. Here the road from Yambo' to Medina (see Route No. 33, p. 188) comes in r.

Dir. SSW., down a valley guarded by blockhouses.

1 m. Track passes a fountain in ruins, and, near it, a half-choked well. At this point a *wādi* joins from NW.

2 m. *Kharmah*, a village in a branch *wādi* of *Wādi Safrah*.

- 68 5 *Safrah*, a village with scattered hamlets built partly on a mountain slope and partly in the bottom of a narrow part of *Wādi Safrah*; it is an important market-centre for all the surrounding tribes. A copious stream of tepid water runs down the valley, and there are several other springs and wells. Fruits, cereals, vegetables and stock are raised; date-groves extend for about 4 m. along the valley. Much honey of the best quality is produced in the neighbourhood, and it forms an important article of trade in the market of *Safrah*.

[The above description of the route between *Safrah* and Medina should be compared with that given from Burckhardt in Route No. 33, II, pp. 190 ff. It will be noted that though the total distance (68 m.) is the same, the details of distances between certain of the stages are not altogether in accord, which is doubtless due in part to the fact that the lines followed did not coincide throughout. With regard to his journey from Medina to Yambo' (Route No. 33 reversed), Burckhardt himself says: 'The distances of this journey do not exactly agree with those given in coming to Medina; but I prefer stating them as I found them noted down in my journal.']

miles.
total. stages.

Dir. SSW., at first over level ground. The track then descends *Wādi Zaqāq* (Zogāg), which at first is very narrow and difficult for camels, but gradually becomes wider and less steep ; stony ground all the way, with a few acacia trees here and there.

12 m. Leave *Wādi Zaqāq* and descend among low rocky hills.

2 m. Enter mountainous country with *Jebel Subh* on the E. The route follows enclosed valleys of sandy soil, full of detached rocks. Many valleys in the neighbourhood are fertile and produce dates and dhurra ; the balsam tree is principally found here, and Arabian senna is collected exclusively in this district.

11 m. The route leaves the mountains at an angle made by the main coastal chain and a branch range running W. towards the sea.

Dir. S. by E.

96 28 *Bir esh-Sheikh*, a well, solidly cased with stone, 30–40 ft. deep and 15 ft. in diameter, situated in a sandy plain.

Dir. S. by W. over low hills and uneven ground. Then for several miles the road runs parallel to a low ridge of mountains on the E. A sandy plain covered with brushwood is crossed, with *Jebel 'Ayūb* lying about 6 m. to E. ; the track then traverses a flinty plain, with here and there stretches of clay capable of cultivation.

128 32 *Mastūrah*, two good stone-lined wells with a copious supply of water, near a ruined tomb.

[For a slightly variant description of the country traversed in the following stage to Rābūgh, see below, Route No. 35, p. 196. From Hamra (see above, m. 63 of route) the Hajj caravans sometimes follow a track to Beder (see Route No. 33, II, p. 190) and thence to Mastūrah.]

Dir. S. by E., over flinty ground, among sandhills with a few scattered trees ; then over hilly and sandy ground.

158 30 *Rābūgh*, a group of 3 or 4 detached hamlets ; see I, p. 122. The sea is about 7 m. distant.

miles.
total. stages.

Dir. slightly E. of SSE., at first along a level stretch, and then over a stony plain where masses of rock lie across the path. The coastal chain lies from 20 to 30 m. to the east throughout this stage.

12½ m. The route leads through low hills of moving sand.

182 24 *Kulleyah* (or *Kubeibah*), a Hajj station; water and a small date-grove about 4 m. to NE. The sea is from 12 to 16 m. distant.

Dir. varies at first, then tends S. by E. For some miles the route traverses ground covered with a saline crust.

20½ m. Track enters deep sandy ground with tamarisk trees; it then crosses a gravelly plain.

5½ m. A steep sandy hill, called *Thenyat el-Khuleis*, is crossed. The road on both slopes of the hill is flanked with walls to prevent encroachment of sand; camels ascend with difficulty. The ruins of a large building stand at the top.

Dir. SSW. for about 4 m. over a partially cultivated plain.

213 31 *Khuleis* (or *Khalis*), a village of 200 inhabitants in Burekhardt's time, now said to have a population of 500. It lies in a broad plain and consists of several scattered hamlets, the largest of which is called *Es-Sūq*. Near the *sūq* rises a small rivulet of tepid water, and there is also a tank. There are date-groves, gardens and considerable livestock. About 6 m. to the NE. is the fertile *Wādi Khuwār*, known for its numerous plantations of bananas, from which the markets of Mecca and Jiddah are supplied.

Dir. SE. by S. over a wide sandy plain, with here and there tracts of clay bearing trees and shrubs.

19 m. At a spot marked by a tomb, descend a narrow defile which is only practicable for laden camels in single file; the bed of the defile is piled with large sharp blocks of stone and is liable to sudden torrents after rain.

2 m. The valley opens out.

miles.

total stages.

- 237 24 *Bir 'Asfān*, a Hajj station with a large, deep, stone-lined well of good water ; no village according to Burekhardt, but now reported to have a population of over 500 ; see I, p. 122.

Dir. SE. by S., gently descending a broad wooded valley and then traversing a plain overgrown in places with trees and thick shrubs.

9 m. *Sebil el-Qa'rah*, a well, now filled up. The route crosses the stony waterless plain of *Qa'rah*.

- 253 16 *Qa'rah*, camping-place in a black flinty plain ; no water ; a few thorny trees.

Dir. SE. by S., traversing the gravelly plain of *Barqa*, which bears a few trees.

11 m. The track enters open country devoid of trees.

Dir. SE. by S., gently descending through valleys full of acacias.

2 m. Cross *Wādi Fātimah*, here about 2 m. wide.

- 268 15 *Wādi Fātimah*. The camping-ground is on the S. side of the wādi, in a section known as *Wādi Jemmūm*, which extends about $3\frac{1}{2}$ m. W. to Madwah and about 11 m. ENE. till it joins *Wādi Leimūn*. The ground is low and abounds in springs and wells ; there is much cultivation, but mostly on the N. bank. Near the camping-place a small rivulet, 3 ft. broad, and 2 ft. deep, runs in a covered stone channel, but it is open for a short distance for caravans to water.

Dir. SSE.

$4\frac{1}{2}$ m. The route turns a hill.

Dir. SE.

2 m. *Meimūniyah* (or *Meimūmah*), a ruined building with tomb near a well of sweet water and a small stone cistern. The track, now almost level, runs through valleys of firm sand between low hills ; there are some shrubs here and there.

8 m. *'Omrah*. Thence the road is paved in parts, particularly on the ascents.

- 285 17 **MECCA**, town ; see I, pp. 123 ff.

The following are the stages and approximate distances between Rābugh and Mecca, according to the Egyptian War Office Itinerary (1916):

miles.
total. stages.

		Rābugh , group of hamlets; see I, p. 122.
28	28	<i>Qadhīmah</i> (or <i>Qadheimah</i>), group of hamlets; see I, p. 122.
54	26	<i>Khuleis</i> , village; see above, p. 169.
78	24	<i>‘Asfān</i> , village; see above, p. 170.
106	28	<i>Wādī Fātīmah</i> ; see above, p. 170.
119	13	MECCA , town; see above.

[According to an earlier itinerary issued by the Egyptian War Office, there is an alternative track from ‘Asfān to Mecca; it is mentioned by Burkhardt as running about 4 m. E. of the route given above, and passes the following places: ‘*Asfān*, village; see above, p. 170; 9½ m. *Sebīl el-Khukī* (or *Khakī*); 12 m. *Bir el-Bāsha*; 13 m. *Hamūm* (? Hamma); 22 m. **MECCA**.]

ROUTE 28

ALTERNATIVE ROUTES BETWEEN RĀBUGH AND MEDINA

Authorities: For I (Sultāni Route) and III (Milaff Route) native information obtained by Shipley, 1812. For II (Furayī Route) Egyptian War Office Itinerary, 1916; and ‘Ali Pasha Mubārak, 1886.

Direction: NNE.

Distance: Crow-fly, 140 miles; road, 168 miles (I), 159 miles (II), 154 miles (III).

Character and Supplies: see p. 48.

miles (2 per hr.)

A. SULTĀNĪ ROUTE

total. stages.

		Rābugh , town; see I, p. 122.
		Dir. at first N., then NE.
24	24	<i>Mastūrah</i> ; water scarce.
60	36	<i>Majarma</i> ; one well.
80	20	<i>Bedēr</i> , small town; see Route No. 33, II, p. 190.
96	16	<i>Wāstah</i> ; running water, houses, empty fort.
120	24	<i>Bir ‘Abbās</i> ; large well, houses, empty fort; see below, Route No. 33, A, p. 189.

	miles.	
total.	stages.	
144	24	<i>Fereishah</i> ; large well, shops.
168	24	MEDINA , town ; see I, p. 116 f.

B. FURAYI ROUTE (OR DARB EL-FARI)

Rābūgh, group of hamlets ; see above.

Dir. NE. generally.

- | | | |
|----|----|---|
| 17 | 17 | <i>Wādī Harshān</i> . |
| 36 | 19 | <i>Bir Radhwān</i> . Water ; grazing available. |
| 48 | 12 | <i>Abu Dhibā'a</i> , a small village of brick and mud houses ; plentiful water from streams ; fruit cultivation including dates, lemons and bananas ; dhurra, barley, and cucumbers also grown. |

Dir. N. at first, then bearing NE.

The route crosses high mountains and passes *Belediyah* and *Madrej*, where dates, lemons, bananas, barley, and dhurra are cultivated.

- | | | |
|----|----|---|
| 82 | 34 | <i>Rayyān</i> , a bedouin village ; water-supply from streams ; dates, pomegranates, lemons, and <i>līn</i> (a species of orange-tree) are grown ; some vegetables and cereals. |
|----|----|---|

Dir. NE. for a short distance, then bearing N.

- | | | |
|----|----|--|
| 99 | 17 | <i>Bir el-'Adham</i> (or <i>'Amd</i>) ; bitter water. |
|----|----|--|

Dir. N. by E. at first, then curving gradually round to N. by W.

- | | | |
|-----|----|--|
| 124 | 25 | <i>Bir el-Māshi</i> , well of fresh water ; no vegetation. |
|-----|----|--|

Dir. N. by E.

- | | | |
|-----|----|-------------------------|
| 135 | 11 | <i>Bir el-'Alāwah</i> . |
|-----|----|-------------------------|

Dir. N. by E. at first, then bearing almost due N.

- | | | |
|-----|----|--|
| 152 | 17 | <i>Ab'ār 'Ali</i> (or <i>Bir 'Ali</i>), wells ; see Route No. 27, p. 165. |
|-----|----|--|

Dir. NE. by E.

- | | | |
|-----|---|-----------------------------------|
| 159 | 7 | MEDINA , town ; see above. |
|-----|---|-----------------------------------|

C. MILAFF ROUTE

Rābūgh, group of hamlets ; see above.

Dir. successively N., NE., and ENE.

- | | | |
|-----|----|--|
| 24 | 24 | <i>Mastūrah</i> ; water scarce. |
| 56 | 32 | <i>Bir esh-Sheikh</i> ; deep well. |
| 72 | 16 | <i>Bir Ibn-Hasāni</i> ; good well water. |
| 100 | 28 | <i>Khalas</i> ; plentiful running water. |
| 130 | 30 | <i>Bir ed-Derwish</i> ; one well. |
| 154 | 24 | MEDINA , town ; see above. |

ROUTE 29

MEDINA—MECCA (Inland Route or Darb esh-Sharqi)

Authorities : Egyptian War Office Itinerary, 1916 ; Burton, 1853 ; Doughty (native information), 1878 ; Persian Gulf Gazetteer, 1908. Burckhardt reports a few details (1815), but he did not actually go over the route.

General Direction : SE. by S. to about midway, then SW. by S.

Distance : Crow-fly, 223 miles ; road, 345 miles (W.O. Itinerary), 248 miles (Burton). Considerable discrepancies will be found in the distances between stages given by the different authorities, especially in the earlier stages of the route, and the order of the stages does not agree in all cases. It is probable that Burton underestimated his distances throughout ; for, though he generally marched by day, his pace works out at no more than $1\frac{1}{2}$ m. an hour.

Character and Supplies : see p. 48.

A. ROUTE ACCORDING TO THE EGYPTIAN WAR OFFICE ITINERARY

miles.
total. stages.

MEDINA, town ; see I, p. 116 f.

Dir. N. by E.

$2\frac{1}{2}$ m. *Sīdi Hamza*, l. of road.

Dir. E. by S. for 2 m. ; then turn NE. up *Wādi Hamdh*, skirting the eastern flank of *Jebel Ohod*.

5 m. Dir. gradually bears round to ESE. The road now leaves *Wādi Hamdh* and passes a ridge of black rocks to r. ; scattered trees.

$2\frac{1}{2}$ m. Track from *Hā'il* to Medina comes in l.

$13\frac{1}{2}$ m. Cross a tributary *wādi* of *Wādi Hamdh*.

6 m. Track becomes rocky and difficult.

42 42 *Wādi Khanaq* ; water.

Dir. bears gradually SE. by S. ; track crosses open ground with tufts of grass, passing at about 10 m. some rocks to r.

72 30 *Mughāba* (*Moghaba*), no water ; the route runs through thin bush, then over open ground.

13 m. Pass black rocks ; then through thick bush.

9 m. Cross a *khōr*, among thick bush ; the road then becomes winding.

4 m. Track crosses a very rocky pass ; caravans go in single file for about 4 m.

103 31 *Hajarīyah* (or *Hijriyah*) ; good water ; see below, p. 176 (m. 71 of Route B).

miles.

total. stages.

4 m. A rocky uneven slope ; hard going for about 4 m. ; then the road becomes good.

Dir. S. by W.

4 m. Well, to l. of track.

2 m. Well, to l. ; immediately after, the track passes *Tell Ahmar* to l.

Dir. SSE.

122 19 *Ghurāba* (*Ghoraba*) ; no water.

Dir. continues SSE., over open ground, which farther on is covered with lime and salt.

14 m. Dir. changes, generally, to SSW.

4 m. The road becomes rocky ; heavy marching.

146 24 *Sufeinah*, village ; good water ; cultivation ; see below, p. 177 (m. 116 of Route B).

Dir. SE. by S.

5 m. Rocks passed for some miles, to r. of road.

172 26 *Hodaba* ; no water.

Dir. generally SSW., over open ground.

200 28 *Hāthah* (*Hadda*) ; water ; about 2 m. N. are some ruins.

Dir. S. over open ground.

13 m. Enter grass country, with scattered trees.

15 m. Dir. SW. by S., at first through bush, then over open country.

238 38 *El-Birkah* ; water only in the rainy season ; see below, p. 178 (m. 178 of Route B).

Dir. continues SW. by S., the track running through bush.

16 m. The bush is left, and the track again crosses open ground.

7 m. Sharp change of direction to slightly S. of W.

23 m. Enter rocky undulating ground, which continues for about 3 m.

287 49 *Dharibah* (or *Zaribah*) ; water plentiful in the rainy season, but usually little in summer ; see below, p. 178 (m. 201 of Route B).

Dir. varies, but tends generally SW. by S.

8 m. A *khōr* is crossed.

Dir. roughly S. for about 10 m. ; then SW. by S., following *Wādi Leimūn*, in which there is some cultivation.

- miles.
total. stages.
- 319 32 *Wādi Leimūn* village, to r. of road; springs of good water and gardens; see below, p. 179 (m. 225 of Route B).
Dir. continues SW. by S., leaving *Wādi Leimūn*, which at this point makes a sharp bend westward.
6 m. Well, to l. of track.
15 m. A stone wall, to r.
- 345 26 **MECCA**, town; see I, pp. 123 ff.

B. BURTON'S ROUTE

MEDINA, town; see I, p. 116 f. Leave by the *Bāb el-Misr*.

Dir. N. at first, then NE.

- 2½ m. (about). The *Ghadīr* depression is reached with *Jebel Ohod* at some distance to l. Bir Rashīd (a well) and a whitewashed dome lie to r. of road.

The road then crosses a *fūmara*, leading N. out of the Medina basin, and follows a rough stony path dotted with thorny acacias.

- 5 m. A bed of lava is reached.

- 7 m. The route turns E., and enters a *boghāz*, or pass. It then follows the course of a *wādi*, shut in by steep hills; the *wādi* becomes narrow and winding. After rain it is a torrent; at other times water is obtainable near the surface by digging. The *wādi* contains a sparse growth of camel-grass and acacia trees.

- 5 m. The route meets a wall of rock, turns abruptly S., and ascends.

- 22 22 *Ja (Jau) esh-Sherīfah*; a rendezvous of caravans, in a hollow.

Dir. S. slightly by W., through a pass.

- 7 m. Leave the pass and cross a hollow, or *khabt*, of gravel and clay (5 m. by 12 m.), which collects water after rain.

- 11 m. The hollow narrows between low hills, and after ½ m. widens to a breadth of 2 m.

- 4 m. Ascend stony ground for 2 m., to a rocky plain.

miles.

total. stages.

- Dir. SW. The route throughout the stage from Sherifah is described as 'unusually winding'.
- 46 24 *Madūd* (or *Mahattat*) *el-Ghurāb*, on the confines of Nejd ; wells in a desolate rocky plain among irregular masses of hills.
- Dir. SSE. across the rocky plain.
- 8 m. Enter a basin 6 m. broad, surrounded by low hills and overgrown with camel-grass and acacia trees ; the ground is pitted with dry mud-pools.
- 2 m. Cross a rugged ridge covered with detached blocks of basalt, among which grow thorny trees ; difficult and painful going over sharp rocks. The route then enters another basin of gravel and clay with outcrop of basalt.
- 7½ m. Enter hard broken ground, where the road is flanked l. by a wall of black basalt.
- 3 m. The route traverses another ridge, similar to the last, into a wooded basin.
- 1½ m. A deep wādi is crossed.
- 2 m. Enter *Wādi Khanaq*.
- 71 25 *Hijrīyah* (or *Hajariyah*), camping-place on a small plain in *Wādi Khanaq* ; see above, p. 173 (m. 103 of Route A). *Bir Hārūn* wells lie higher up the wādi.
- Dir. S. by W., by a bad footpath out of *Wādi Khanaq* ; then across a black stony plain.
- 3½ m. The route ascends a sandy wādi overgrown with acacias, senna plants, *dōm* palms, and other trees.
- 16 m. Descend a long steep hill, and enter a nitrous depression, 12 m. broad, where the track is level.
- 99 28 *Suweirqīyah*, a village of 100 mud houses built at the foot and on the side of a basaltic ridge ; a rude fort on the summit consists merely of a parapet of uncut stone ; the lower part of the town is protected by a mud wall with semicircular towers ; there is a small *sūq*, which is well supplied with meat ; wheat, barley and dates

miles.
total. stages

are grown, and goats are procurable. Water is obtained in abundance by digging, but it is brackish and aperient and has a disagreeable smell when stored.

Dir. SE. over a flat with spare vegetation.

5 m. Track passes a basaltic ridge and descends a long valley.

8½ m. A difficult ridge is crossed.

Dir. S., the track running W. of a low range of sandstone and porphyry hills.

1½ m. A field of basalt is entered; the track runs among blocks of rock and is very difficult.

116 17 *Sufeinah*, village of 50 or 60 mud-houses, surrounded by a rampart; a good well, and a small *sūq* where fowls may be procured; extensive date-groves and fields of wheat, barley, and maize; see above, p. 174 (m. 146 of Route A). [Burton states that the Persian Hajj Route here falls into the Darb esh-Sharqi; see below, p. 180, Route D.]

Dir. SE., at first over open country.

2 m. The track climbs a precipitous ridge and descends into a broad gravelly plain.

6 m. Dir. S. over a high tableland.

2 m. A plain is entered, with here and there signs of standing water.

Dir. bears SSW.

During the whole of the stage from *Sufeinah* the country traversed is of a peculiarly desolate, barren, and rocky character.

134 18 *Muteir*, halting-place; no water nor houses, only a few parched shrubs.

Dir. SSW., over dangerously rugged ground, known as a *wa'r*; it is covered with thickets, and crossed by many basaltic ridges; very difficult going.

11½ m. The track enters a broad depression (*sabkhah*) of clay, with outcrops of basalt, and strewn with gypsum.

154 20 *Ghadir*, an extensive depression, which presents the appearance of a lake after rain and is overgrown in parts with desert vegetation; no regular supply of water. The depression is bounded on

miles.
total. stages.

the E. by a wall of rock, at the base of which are 3 wells, guarded by a *burj*, falling into ruin.
Dir. S. by E. out of the depression.

4 m. Rugged ground is entered and traversed for several miles.

11½ m. The track enters a wide plain thickly covered with thorny trees, which in places obstruct the way.

7½ m. A high ridge is crossed.

178 24 *El-Birkah*, a large ruined cistern of hewn stone, built by the Caliph Hārūn er-Rashīd; see above, p. 174 (m. 238 of Route A).

Dir. E., over thickly-wooded and undulating ground; a network of paths runs through the brushwood, and it is easy to lose the way.

15 m. The track ascends a hill and then descends into a rock-girt ravine running NE. and SW.; the sandy bottom of the ravine is overgrown with saline and other plants.

Dir. SW.

6½ m. Leave the ravine and turn W.

201 23 *Dharibah* (or *Zaribah*), an undulating plain, with a little vegetation, among high granite hills; water is obtainable close to the surface by digging; see above, p. 174 (m. 287 of Route A).

Dir. SW.

3 m. A wādi is entered, which varies in width from 150 ft. to ¾ m. and descends sharply; the channel is of coarse sand, with here and there masses of sheet rock and patches of thin vegetation.

1½ m. The track enters a ravine, or chasm, between a stony buttress to the W. and a less abrupt precipice to the E.; it is described as 'a perilous valley, unpassable in rain'. Thorn trees fill one side of the channel. Attacks by Ateibah are frequent. The ravine becomes more precipitous as the route proceeds, and the track is very difficult for camels, especially after rain, when it becomes slippery.

19 m. The ravine becomes less precipitous and opens out.

miles.
total. stages.

Dir. N. for a short distance.

225 24 *Wādi Leimūn* village (or *Medheiq*); there is a good stream of water, and limes, pomegranates, and dates are procurable; see above, p. 175 (m. 319 of Route A).

Dir. SW. down the wādi.

3½ m. The wādi is left at a point where it makes a bend to r., by a difficult track over a steep ridge of granite.

1½ m. *Solah* (or *Sulah*), a plain among hills, with scattered villages and clumps of trees.

2 m. The track ascends a steep and difficult pass; it then runs across several small depressions, divided by hills, and rises generally all the way.

14 m. *Thenyat el-Quta'*, a winding path through a cutting, flanked by watch-towers, over the last hill-ridge before Mecca is reached.

Thence a road through the *Ma'ābdah* (or *Mu'ābidah*) suburb and by the *Jannat el-Mā'la* cemetery to the *Mā'la Gate*.

248 23 **MECCA**, town; see I, pp. 123 ff.

C. ROUTE ACCORDING TO DOUGHTY, FROM NATIVE INFORMATION

MEDINA, town; see I, p. 116 f.

Suweirqiyah, village; see above, p. 176 (m. 99 of Route B).

Sufeinah, village; see above, p. 174 (m. 146 of Route A) and p. 177 (m. 116 of Route B).

'Ain Ibn Ghāban; palms, water, and some ruins.

Hāthah; corn-fields and some ruins; see above, p. 174 (m. 200 of Route A).

Muslah, a cistern and some ruins; the village of *Fereyyah* can be seen to l. of road.

El-Birkah, ruins; see above, p. 174 (m. 238 of Route A).

El-Birkah is described as in *Rukabah* (*Rukkaba*), 'part of the high desert between Qasim and Mecca'.

Dharibah (or *Dhāt 'Irq*), ruins of a village; see above, p. 174 (m. 287 of Route A) and p. 178 (m. 201 of Route B).

Bertha, or *Bir Hadheil*, a well in the midst of *Wādi Leimūn*.

miles.
total. stages.

Medheiq (Modheiq), the outlet of Wādi Leimūn; see above, p. 175 (m. 319 of Route A) and p. 179 (m. 225 of Route B). Near it is *Jedidah*, with palms and corn-fields watered by springs.

Barūd (Barrūd); fig-trees and wells of cool water; see below, p. 181 (m. 111 of Route D).

MECCA, town; see I, pp. 123 ff.

D. THE ROUTE ACCORDING TO PERSIAN GULF GAZETTEER, FROM
NATIVE INFORMATION

MEDINA, town; see I, p. 116 f. [In the first part of the route, as far as Hāthah (a distance of 200 m. according to Route A), names of stages only are mentioned; from that point to Mecca, distances are given.]

Dhahārah.

Khanag; see above, p. 173 (m. 42 of Route A) and p. 176 (m. 70 of Route B).

Ras el-Boghāz.

Hijriyah; see above, p. 173 (m. 103 of Route A) and p. 176 (m. 71 of Route B).

Tiheyym.

Sufeinah; see above, p. 174 (m. 146 of Route A) and p. 177 (m. 116 of Route B).

0 0 *Hāthah*, wells; see above, p. 174 (m. 200 of Route A).

Dir. SSW., over a rising saline plain for about 11 m. (3 hrs.); then over undulating stony ground.

24 m. (7 hrs. from Hāthah) *Birkat esh-Shāmi*, from which water is taken by the pilgrims to purify their *ihrāms*; cf. p. 174, (m. 238 of Route A). The track then crosses a gravelly plain, with acacia and other trees.

35 35 *Wādi 'Aqīq*, a camping-ground with a tank, situated in a jungle of *ber* and other trees.

Dir. continuing SSW. for about 11 m. (3 hrs.) over a level plain with acacias, and for the rest of the stage over a difficult rocky track, narrow in places, between hills.

The Persian Hajj Route (Route No. 23) comes in here; cf. (p. 177) m. 116 of Route B, which states that it falls in at Sufeinah.

miles.

total. stages.

- 54 19 *Dharibah*, a camping-ground in thick jungle in a narrow valley; water is obtained at 2 ft. by digging in the water-course; see above, p. 174 (m. 287 of Route A) and p. 178 (m. 201 of Route B).

Dir. SW., over level ground, with some stones, for about 7 m. (2 hrs.); then through a difficult tract.

14 m. (4 hrs.) The track enters and follows a sandy ravine-bed.

- 89 35 '*Ain el-Leimūn*, a village with a spring, of which the channel is spanned by a small stone bridge; some shops, but the supplies are limited; gardens at the foot of the mountains; see above, p. 175 (m. 319 of Route A) and p. 179 (m. 225 of Route B).

Dir. continues SW., over a sandy tract.

11 m. (3 hrs.) The track enters a narrow valley.

3½ m. (1 hr.) A sandy wādi, containing some acacias, is followed.

- 111 22 *Barūd*, a camping-place in a broad valley, with a large well called *Bir en-Nebi*, containing sweet water at 30 ft.; there are fig-trees around it, which afford shade.

Dir. continues SW., along a valley.

9 m. (2½ hrs.) '*Alamein* (or *Amyāl*), two columns of stone 12 ft. high and 25 yds. apart marking the boundary of the Haram. The road traverses a broad plain between hills.

4½ m. (1½ hrs.) *Jebel en-Nūr*. Thence the track runs along a stony ravine-bed, past gardens, houses, and coffee-shops.

- 129 18 **MECCA**, town; see I, pp. 123 ff.

[The following times are given by the Persian Gulf Gazetteer for the stages from Hāthah to Mecca: *Wādi 'Aqīq* (10 hrs.), *Dharibah* (5 hrs.), '*Ain el-Leimūn* (10 hrs.), *Barūd* (6 hrs.), *Mecca* (5½ hrs.); total 36½ hrs.]

ROUTE 30

MUWEILAH—TEBŪK

Authority : Wallin, 1848.

General Direction : NE.

Distance : Crow-fly, 98 miles ; road, 115 miles.

Character and Supplies : see p. 49.

miles.

total. stages.

Muweilah, village of some seventy to eighty families, with castle ; see I, p. 112.

Dir. NE. over the sterile sandy plain of the shore, close beside the Egyptian pilgrim route.

3 m. (1 hr.) Enter *Qāmirah*, a flat valley bearing slight vegetation.

1½ m. (½ hr.) Low sandstone hillocks and masses of conglomerate begin.

Continue through gently ascending valleys between hills of similar formation, but rather darker in colour, which gradually increase in height.

18 18 *Weiwi*, small valley (6 hrs. from Muweilah).

Pass through small valley and enter a larger one, *Wādi Sadr*, which, formed by the accession of various ravines and smaller valleys running down from between the peaks of the main chain, gradually expands into an open plain along its foot. The ravines in the mountains are steep and rugged, but afford plenty of water, and contain some date-palms. The *Wādi Sadr*, being one of the most fertile spots in the coastal plain, is much frequented by Bedouins ; the soil of the plain is soft sand.

Dir. NNE. across the plain of Sadr, towards *Jebel Harb*.

9 m. (3 hrs.) *Jebel Harb*.

Skirt *Jebel Harb*, the steep flank of which turns at an angle to the ENE., giving rise to a wide opening through the main chain.

miles.

total. stages.

- 3½ m. (1 hr. 10 m.) Enter *Kahalah*, the first of the valleys, or rugged defiles, penetrating the interior of the chain; along the route are scattered acacia trees and some herbage.
- 4 m. (1 hr. 20 m.) Turn NE. along the *Kahalah* valley, which here is known as *Huleiqah*.
- 7 m. (2 hr. 20 m.) Enter defile of *Naqb el-Huleiqah*, and after crossing summit of pass, descend to *Suweiqah* (1 hr. 20 min. from entrance to defile).
- 45 27 *Suweiqah*, open circular plain.
 Dir. SSE. across plain towards lower range of hills.
- 2½ m. (¾ hr.) Enter valley of *Mureihah*.
- 5½ m. (1½ hrs.) After traversing valley, cross pass of *Dheiqat es-Sa'lul* into *Wādi Sawāwin*.
- 3½ m. (1 hr. 10 m.) *Wādi Sawāwin*, a regularly defined valley sloping rapidly to WSW.
- Dir. NE. along the bottom of the valley; the track is difficult, being encumbered with huge stones and detritus from the adjacent rocks.
- 10½ m. Enter *Naqb es-Sawāwin*, a very steep pass at head of valley.
- 1½ m. (1 hr.) Summit of pass is reached. The descent from the watershed is gradual, the land sloping gently towards the interior desert. Descend into *Wādi Rawiyān*.
- 69 24 *Wādi Rawiyān*.
 Dir. ESE. down valley.
- 3 m. (1 hr.) Turn ENE. and enter *Hisma*, a vast plain of soft sand, bearing desert vegetation, with occasional patches of rocks and stony soil, and a few isolated hills of red sandstone. The plain is entered at *Zawiyah*, a tract in its SW. corner, where a lateral range of hills, *Jebel Harrah*, which forms its southern boundary, branches out at an acute angle from the *Shāfah* chain.
- Dir. NNE., following the side of the *Jebel Harrah* range.
- 96 27 *Wādi 'Uweinid* is crossed; it is a ravine resembling the dry bed of a torrent, and descends to the plain of *Hisma* from the higher part of the range of *Jebel Harrah*, in a NNW. direction, between hil-

miles.
total. stages.

locks and ridges covered with loose sand. The ravine is said to contain a well of tolerably good water and much herbage and brushwood.

Dir. E. over hilly ground.

3 m. (1 hr.) Enter narrow pass between two perpendicular cliffs.

1 m. ($\frac{1}{2}$ hr.) *Baqqār*, a plain, is reached on emerging from pass. Continue across the level plain (5 hrs.) to *Tebūk*.

115 19 **Tebūk**, station on Hejaz Railway, with village and oasis ; see Route No. 17, p. 128 f.

ROUTE 31

WEJH—EL-'ALA

Authorities : Reports by officers of the Egyptian Army ; Euting (1884).

Direction : Generally N. of E.

Distance : Crow-fly, 119 miles ; road, 130 to 154 miles, according to route traversed.

Character and Supplies : see p. 49.

miles.
total. stages.

Wejh, port on Red Sea ; see I, p. 113 f.

Dir. E. by N. ; at 2 m. the track enters *Wādi Umm Tundub* and passes a mountain of the same name ; then it takes a winding course, through mountains, by *Wādis Sarrah*, *Nuhdein*, and *Argha*.

25 25 *Missara*, camping-place near *Jebel Murra*.

Dir. E., through *Wādi Beirak*, and past *Jebel el-Aggag*.

45 20 *Maur*. The road runs through a valley with a few trees.

63 18 *Kharrar*, camping-ground at the foot of a mountain of the same name. Road enters a valley.

85 22 *Wādi Gayada* ; camping-ground at the foot of *Jebel Ghidah* (Gayada ?). Trade runs along *Wādi Fazla*.

110 25 *Wādi Fazla* ; camping-ground at the head of this wādi. Route then runs along *Wādi Dheis* ; a few trees here and there.

130 20 **EL-'ALA**, town and station on the Hejaz Railway ; see I, p. 115 f., and Route No. 17, p. 134 f.

miles.
total. stages.

The following is an *Alternative Route* from Wejh to El-'Ala, also based on native information :

Wejh.

Dir. NNE. up a wādi, with a few trees.

11 11 *Rath.* Continue NNE. up the same wādi.

29 18 *Sirr*, camping-ground, with a few trees in the vicinity.
Continue NNE.

43 14 *Kazaz*, camping-ground on NE. slope of Jebel ed-Daghma ; wells and trees.

Dir. ESE.

61 18 *Beidha*, village on the eastern slope of the Hejaz coastal range ; wells ; some date-palms and other trees. Doughty describes Beidha as a ruined village, and beside it a standing hamlet of tents of the Billi tribe, who own a few palm-trees.

Dir. continues ESE.

83 22 *Sharafa* ; a few trees are passed, here and there, along the rest of the route.

103 20 *Gazal* (*Ghazāl* ?).

123 20 *Madiak* (*Madhiq* ?).

143 20 *Halawa* (*Halāwah* ?).

154 11 **EL-'ALA**, town ; see above, p. 184.

The following *Alternative Route* from Wejh to El-'Ala was that followed, in the reverse direction, by Euting (1884) in just under five days' actual marching, his stages being retained ; as he gives no detailed times and few indications of direction, it is only possible to indicate the route by the names of the wādis, &c., traversed :

miles.
total. stages.

Wejh.

Dir. E. across the coastal plain, passing after 2 hrs. the fort of Wejh on the Egyptian pilgrim road, behind which rise the hills.

Enter *Dhureib* (*Dhreib*), a narrow ravine where there are water-holes.

Wādi Leilah ; camp in wādi.

After a day's march, through monotonous country, ascend a steep ravine.

miles.
total. stages.

Sufāh ; camp.

Track passes near two fantastically shaped hills named *Ghalab* and *Tenibbah*, and traverses *Wādi el-Qudeir* (*Qdeir*) and *Jiddel es-Sedārah*.

Cross pass of *Tayyib Ism*, ascending by a steep ravine very difficult for camels ; after ascent of pass, at *Tayyib Ism*, are a few wild palms and flowing water.

Enter *Wādi Qumeilah* (*Qmeilah*), and pass *Meleihah*, in the *wādi*, where there is water.

Wādi Ferri, a broad *wādi*, is entered and is afterwards left by a stony pass, *Nuqrah* (*Noqrah*), which leads into *Wādi Ribā'ah*.

Hāmīr, in *Wādi Ribā'ah*, about 3 hrs. from *Meleihah* ; camp.

Track traverses *Sha'ib Sherhūt* into *Wādi esh-Shillul*, where there is a spring in a rocky cleft known as *Abu Hammādah*.

Wādi el-Hamm ; camp.

After leaving the *wādi*, the track crosses a plain with abundant camel-grazing into the broad *Sha'ib Abu Billi* (*Beli*).

Dir. E. through the *Sha'ib Umm Hashīm*, into the broad *Wādi el-Jish*, along which the track passes northward to *El-'Ala*.

EL-'ALA, town ; see above, p. 184.

ROUTE 32

WEJH—MEDINA

Authority : Egyptian War Office Itinerary of Pilgrims' Roads.

General Direction : SE. by E.

Distance : Crow-fly, 236 miles ; road, 264 miles (83½ hrs.).

Character and Supplies : see p. 49.

miles.
total. stages.

Wejh, port ; see I, p. 113 f.

25	25	(8½ hrs.)	<i>Mahattat Umm Haraz</i> .
52	27	(8½ hrs.)	<i>Khawtla</i> .

miles.			
total.	stages.		
66	14	(4½ hrs.)	<i>Mahattat el-Matar.</i>
93	27	(8½ hrs.)	<i>Mahattat el-Akila.</i>
114	21	(6½ hrs.)	<i>Mahattat el-Faqā'ir.</i>
137	23	(7½ hrs.)	<i>Mahattat en-Naqqarāt.</i>
145	8	(2½ hrs.)	<i>Mahall el-Mabit.</i>
165	20	(6½ hrs.)	<i>Ab'ār Halwa.</i>
177	12	(4 hrs.)	<i>Mahall el-Mabit.</i>
197	20	(6½ hrs.)	<i>Qal'at esh-Shujū'.</i>
218	21	(6½ hrs.)	<i>Mahall el-Milh.</i>
236	18	(5½ hrs.)	<i>Mahall ed-Dakni.</i>
246	10	(3 hrs.)	<i>Mahall el-Mabit.</i>
260	14	(4½ hrs.)	<i>Ab'ār 'Othmān.</i>
264	4	(1½ hrs.)	MEDINA , town; see I, p. 116 f.

[The Indian Government Road Book gives the following details of a variant route from Wejh to Mahattat el-Matar: Dir. ESE. For about 4 m. the track crosses a bare stretch of sand and then winds among hills. At 60 m. it crosses *Wādī Hamdh*, and, after skirting round a big spur, reaches the village of *Matar* at 72 m.]

ROUTE 33

YAMBO'—MEDINA

Authorities: Burton, 1883, and Burckhardt, 1815; compared with Egyptian War Office Itinerary, 1914, and Sadlier, 1819.

General Direction: ENE.

Distance: Crow-fly, 119 miles; road, 130 miles (Burton), 134 miles (Burckhardt), or 151 miles (Egyptian War Office Itinerary), according to route traversed. Burton gives actual distances between stages. Burckhardt gives times only; the distances given below (II) are only tentative, being computed from his times on a general basis of 2 m. per hour (mainly night marching).

Character and Supplies: see p. 50.

miles.
total. stages.

A. BURTON'S ROUTE

YAMBO' EL-BAHR, port; see I, p. 114 f.

Dir. E. along the plain between *Jebel Radhwah* and the sea; there is no regular road, but a trodden line over hard level desert, strewn with granite,

miles.
total. stages,

and bearing here and there a little stunted vegetation.

4 m. The route turns NE. and goes over modulating ground, ascending steadily.

- 16 16 *Halting-station* in a hard rocky plain, barren except for a few shrubs and tufts of herbage. About 1 m. to W. is the small village of *Musahlah* (or *Musah-hal*).

Dir. SE. over a plain, at first hard and clayey and then sandy, crossed by dry water-courses tending W.; then through scrub consisting of tamarisk and thorny acacia.

6 m. The route turns E. over rising open country.

18 m. Enter a sandy wādi, half a mile broad, strewn with stones and pebbles and flanked by abrupt hills.

4 m. The route turns S., crosses several *harrahs* or rocky ridges, and descends some steep and difficult declivities.

- 50 34 *Bir Sa'id*, a deep hole with brackish water at the bottom, lying in a hollow among a few thorns; no houses.

Dir. NE., at first up a valley, then by a winding track in desolated and barren country among mountains and ridges of granite.

- 64 14 *Hamra* (or *Wasitah*), the half-way halt between Yambo' and Medina, a long straggling village in a wādi; there is a small *sūq*; good water from a spring and also by digging in the wādi; see above, Route No. 27, p. 166 f. Here the Darb es-Sultāni pilgrim route from Mecca to Medina (see Route No. 27, pp. 165 ff.) comes in r.

Dir. E. up the bed of a wādi; then through a pass, and over rising ground.

12½ m. *Jedeidah* (or *Kheif*, i. e. 'a place built upon a declivity', a common name in this district), a long straggling line of villages, the greater number of which lie l. of the road; a fort; springs of tolerably sweet water; date groves, and gardens; see below, p. 191 (m. 73 of Burckhardt's route).

miles.
total. stages.

Dir. continues E. The route soon enters a *boghāz*, or defile, noted for attacks by the Harb.

- 88 24 *Bir 'Abbās*, large well; see above, Route No. 28, p. 171. There are also a stone fort, some hovels and a few huts, a coffee-house, but no village; the place lies on a spur in the wādi which is here 2 m. wide; no bushes nor trees within sight.

Dir. E., ascending a wādi.

12 m. *Shi'b el-Hājj* (or the Pilgrim's Pass), an ill-famed gorge, is entered.

2½ m. *Mahallat esh-Shuhada*, in Wādi Seyyalah; there are a few ruined walls and a cluster of oval graves, built of rough stones, beneath the thorn trees to l., a little off the road; see below, p. 192 (m. 105 of Burckhardt's route).

1 m. *Bir el-Hindi*, a favourite halting-place, with well.

Dir. N. The route now leaves the gorge by a well-trodden track over stony rising ground.

- 110 22 *Suweiqah*, a halting-station in a rugged stony plain covered with thorn trees. There is a well 2 m. distant, but no houses.

Dir. NE. over rocky hills and down stony valleys; difficult going for camels.

15 m. Track enters *Wādi 'Aqīq*, in which are stunted trees.

2 m. *Madārij* (or *Mudarraj*), a broad flight of steps roughly cut in a ridge of black lava rock (one of the two 'Harratein' of Medina), up which the route ascends.

1½ m. *Shi'b 'Alī* (or *Naqb 'Alī*), the summit of the ridge. Here the road goes through a lane of lava with steep banks, at the end of which a view is obtained of Medina, lying among gardens and orchards in the plain below. A tortuous path descends the ridge and winds across the plain. The track enters the town by the *Bāb el-'Ambāri*.

- 130 20 **MEDINA**, town; see I, p. 116 f.

miles.
total. stages

B. BUBOKHARDT'S ROUTE

YAMBO' EL-BAHR, port ; see I, p. 114 f.

Dir. SE. by S., crossing an inlet of the harbour, which extends for a considerable distance inland and is only passable at low tide. The route then enters the broad maritime plain.

3 m. Yambo' is lost to view and the route traverses a salt-encrusted plain, with a few trees in spots here and there ; bad going.

13 m. All vegetation disappears, with the exception of a few saline shrubs ; bad going, still over the salt-crust.

6 m. The plain now becomes sandy, with scattered pebbles ; very heavy going.

31 31 *Adheibah*, a camping-ground in a sandy and pebbly plain ; stunted acacia trees.

Dir. E., slightly by S. ; the track continues for several miles across the plain, which is covered in places with shrubs.

17½ m. The route ascends a ridge of hills, where the sand is deep and the going heavy.

½ m. *Qōz 'Alī*, the highest point of the ridge, is reached.

Dir. SE., descending the ridge.

51 20 **Beder** (or **Beder Hunein**), a small town of stone and mud houses, surrounded by a ruined mud wall ; it lies in a plain bounded on the N. and E. by steep mountains, on the S. by rocky hills, and on the W. by hills of moving sand. It is a usual station for Hajj caravans, and possesses a well-furnished market. A copious rivulet runs through the town, from which the somewhat tepid water is conducted by a stone channel to extensive date-groves, gardens, and fields on the SW. side of the settlement. The spacious, well-built mosque of *Ghenāmah* is situated on the S. side of the town.

Dir. NE. by E. The route soon enters the chain of mountains, which branches westward from the main coastal chain at Bir esh-Sheikh (see above, p. 168). It follows a broad, sandy, winding course, fatiguing to traverse.

miles.
total. stages.

3 m. The mountains are left and a broad plain is entered.

2 m. *Jedīd*, a small village in the plain, which is here crossed by a torrent course ; there are a few date-palms and fields.

The route soon enters a valley, known as *Wādi Beder*. Leaving this on the l., it ascends a rough slope, up a steep mountain side, the summit being known as *Thenyat el-Wāsit*. Thence there is a steep, rocky, and difficult descent, where it is necessary to dismount.

At the foot, *Wādi Beder* is re-entered.

[This climb may be avoided by following the *Beder* valley, which makes a circuitous bend westward, passing the settlements of *Barakah*, *Fāra'*, and *Huseinīyah*, and rejoining the mountain track a little below *Wāsit* ; but the distance is longer.]

5 m. *Wāsit*, a village among date-groves, with extensive gardens of fruit-trees in the neighbourhood ; there are numerous wells.

Dir., after some little distance, N. ; then the track trends E. and ascends a narrow valley, known as *Wādi Safrah*, which for some miles has an uninterrupted line of date-plantations on either side.

66 15 *Safrah*, village ; see above, p. 167.

Dir. generally N. The route now enters *Wādi Jedeidah*, which for some miles is lined on both sides with date-palms, passing *Hamra*, a village with a small *sūq* and good spring water (see above, p. 166 f., and p. 188).

7 m. *Jedeidah*, a village with a large market, described as 'now almost in ruins' ; it lies in the *Wādi Jedeidah* ; see above, p. 188 (m. 76½ of Burton's route).

Dir. N. by E., continuing along *Wādi Jedeidah*.

2 m. *Kheif*, an important Hejaz camping-place at the head of *Wādi Jedeidah*, which here widens out. [Burton regards *Jedeidah* and *Kheif* as one and the same place (see above, p. 188) ; the truth seems to be that they form a continuous though straggling line of villages along the *Wādi*.]

miles.

total. stages.

Dir. NE. in a winding valley.

- 80 14 *Wādi Medeiq*, a wide valley in the mountains, the outlet of *Wādi Jedeidah*; it forms a good camping-ground. A fine spring of water issues from a cleft, described by Burckhardt as 'the best water he had drunk since leaving Tā'if'. There are some fields of dhurra.

The route then crosses successively the *Nāziyah* plain and the *Sha'b el-Hāl*, the latter a depression between mountains in which there are many Bedouin encampments.

- 15 m. *Wādi Shuhada* is entered. The *wādi* is straight and broad, and its bed is covered with white sand; it contains no permanent water, but is subject to violent flood after rain.

Dir. bears gradually NNE. along *Wādi Shuhada*; the track makes a slight ascent.

- 10 m. *Mahallat esh-Shuhada* is passed; rude heaps of stones in different parts of the valley mark the tombs of 'the Martyrs'; see above, p. 189 (m. 102½ of Burton's route).

- 107 27 Head of *Wādi Shuhada*; camping-place.

Dir. ENE., across the rocky Fereish plain. The road then enters mountainous country, ascends rocky valleys encumbered with thorny trees, and crosses several torrent courses.

- 18 m. *Silsilah* plain is entered; the ground is rocky, or covered by black and brown flints.

- 4 m. The route descends into *Wādi 'Aqīq*, a narrow torrent bed liable to rapid flood, which it descends.

- 2 m. *Madrajah*, a small ruined village on the E. bank of *Wādi 'Aqīq*, with a small *birkah* and ruined well near it. Here there is a short, steep, paved ascent, hemmed in by rocks, out of the *wādi*.

The track thence crosses rocky ground. [According to Route No. 27 (see above, p. 165), the track passes some distance W. of Bir 'Ali.]

- 134 27 **MEDINA**, town; see I, p. 116 f. [The above description of the route from Safrah to Medina should be

miles.
total. stages.

compared with that from Medina to Safrah, also given by Burekhardt, which is included in Route No. 27, pp. 165 ff.; see also the note which follows that description on p. 167.]

C. ROUTE ACCORDING TO THE EGYPTIAN WAR OFFICE ITINERARY,
WHICH GIVES STAGES ONLY

YAMBO' EL-BAHR, port; see I, p. 114 f.

- | | | |
|------|-----|---|
| 14 | 14 | <i>Nakhl</i> . |
| 44 | 30 | <i>Wāli en-Ni'am</i> . |
| 50 | 6 | <i>Bir Sa'id</i> , water-hole; see above, p. 188 (m. 50 of Route A). |
| 61 | 11 | <i>Bir Naqb el-Fār</i> . |
| 69½ | 8½ | <i>Hamra</i> , village; see above, p. 188 (m. 64 of Route A). |
| 82 | 12½ | <i>Jedeidah</i> , village; see above, pp. 188, 191 (m. 76½ of Route A, and m. 73 of Route B). |
| 103 | 21 | <i>Bir 'Abbās</i> , well; see above, p. 189 (m. 88 of Route A). |
| 117 | 14 | <i>Mahall esh-Shuhada</i> ; ruined walls and graves; see above, pp. 189, 192 (m. 102½ of Route A, and m. 105 of Route B). |
| 122 | 5 | <i>Mahall el-Biyat</i> . |
| 127½ | 5½ | <i>Mahattat esh-Shuryufi</i> . |
| 144 | 16½ | <i>Ab'ār 'Ali</i> (Bir 'Ali), well(s) and hamlet; see above, Route No. 27, p. 165. |
| 151 | 7 | MEDINA , town; see I, p. 116 f. |

ROUTE 34

AKABA—MECCA

Authority: 'Ali Pasha Mubārak (1886), compared with the Egyptian War Office Itinerary; see also Route No. 27 (Rābugh—Mecca).

Direction: SE. by S. generally.

Distance: Crow-fly, 650 miles; road, 697 miles. The distances are computed at the rate of 2½ m. per hr.

Character and Supplies: see p. 50.

miles.
total. stages.

Akaba, village; see I, p. 111 f.

Dir. S. by W. along sea-shore for 7 hrs.; then a very narrow path between hills for 1 hr.

		miles.	
total	stages.		
20	20	<i>Dār el-Humūr</i> ; ancient village on sea-shore, inhabited by Āssabīn and 'Omrān tribes. Dates ; drinking-water is obtained at a little depth by digging.	
		Dir. S. ; in $\frac{1}{4}$ hr. enter an 'aqabah, called <i>El-Uhwa</i> , which takes $1\frac{1}{2}$ hr. to ascend ; 10 hrs., ' <i>Ush el-Ghurāb</i> ; $\frac{1}{4}$ hr., tombs called <i>Esh-Shuhada</i> ; descent.	
55	35	<i>Shurafa</i> and <i>Umm el-Uzam</i> ; no village, nor water ; very hard ground.	
		Dir. S. between hills.	
85	30	<i>Maghayyir Sha'ib</i> , drinkable water ; fruit trees and cultivation.	
		Dir. S. by W. for a short distance and then SSE., over easy track with trees here and there.	
120	35	' <i>Ayūn el-Qasab</i> , on the sea-shore near a stream ; date-trees and cereals.	
		Dir. SSE., first over a hill, then on shingle along shore for 11 hrs.	
150	30	Muweilah , village and fort ; see I, p. 112. [Route No. 30, to Tebūk, goes off r.]	
		Dir. SSE. over sandy plain for 25 m., then by a narrow path, <i>Shaqq el-Aqaza</i> , along which camels go in single file.	
180	30	<i>Dhaba</i> , hamlet, with tower for guards. Drinkable water ; trees ; boats take wood and charcoal to Suez ; see I, p. 112.	
		Dir. SSE. over sandy, flinty, and salt soil.	
210	30	<i>Aslam</i> , ruined fort ; wells, bad water.	
		Dir. SSE. over similar ground.	
240	30	<i>Istabal 'Antar</i> , wells suitable for watering animals.	
		Dir. SSE. over similar ground.	
270	30	Wejh , port ; see I, p. 113 f. [Route No. 31, to El-'Ala, goes off E. by N.]	
		Dir. SE. by S.	
307	37	' <i>Agrah</i> ; no water ; trees.	
		Dir. SSE.	
337	30	<i>Hanak</i> ; no water.	
		Dir. SSE. Track narrows to path only wide enough for camels in single file ; it then ascends over sandy ground.	
370	33	<i>Hura</i> ; water and date-palms.	

		miles.	
total.	stages.		
			Dir. SE. by S., winding over hills, past <i>Sahu' Marmar</i> , <i>El-'Aqabah</i> , and <i>Rikakat el-Hamir</i> .
410	40		<i>Mabat</i> , or <i>Nabat</i> , among hills ; water.
			Dir. SE.
435	25		<i>Khudheirah</i> , between two high hills ; many trees ; no water.
			Dir. S.
460	25		YAMBO' EL-BAHR , port of Medina ; see I, p. 114 f. [Route No. 33, to Medina, leads off E.]
			An easy track to the next stage.
505	45		<i>Sagwifa</i> , no water.
535	30		<i>Afaza</i> .
			Dir. SE. by easy track, with trees and grass, but some- times infested by robbers.
570	35		Rābugh , group of hamlets ; see I, p. 122. [For the section of the route from Rābugh to Mecca (127 m.), see above, Route No. 27, pp. 168 ff.]
697	127		MECCA , town ; see I, pp. 123 ff. [According to the Egyptian War Office Itinerary, the halting-places along this route between Wejh and Rābugh are as follows :— Wejh , <i>Mahattat</i> <i>Umm Haraz</i> , <i>Their</i> , <i>'Aqrah</i> , <i>Hanak</i> , <i>Hura</i> , <i>Nahl</i> , <i>Khudeirah</i> , YAMBO' EL-BAHR (207 m., 66 hrs., from Wejh), <i>Umm Zahla</i> , <i>Dhaba</i> , <i>Saqif</i> , <i>Qā'a</i> , <i>Meimunassi</i> , <i>Mastūrah</i> , Rābugh (124 m., or 39 hrs., from Yambo'). According to this, the distances for 'Ali Pasha Mubārak's route (giving a total of 300 m. as against 331 m.) are rather underestimated, on the 2½ m. per hr. scale. But the 2½ m. per hr. scale corresponds, roughly, with the Indian Government Map (32 m. to the in.).]

ROUTE 35

JIDDAH—YAMBO'

Authorities : Egyptian War Office Itinerary, 1916 ; compared with native information obtained by Shipley, 1912

Direction : NNW.

Distance : Crow-fly, 194 miles ; road, 232 miles, computed from the map of the Egyptian War Office Itinerary.

Character and Supplies : see p. 50.

I. ROUTE ACCORDING TO EGYPTIAN WAR OFFICE ITINERARY miles.

total. stages.

JIDDAH, port ; see I, p. 122 f.

Dir. N. by W., along the coastal plain (Tihāmah).

14 m. *Jebel Umm 'Arār* (? Abār) passed to E.

Dir. N. by E.

8 m. The route for a mile or so skirts the head of the inlet, *Sherm Ubhūr* (or *Buhūr*).

23 m. *Tiwāl*.

17 m. *Diwānāt*.

69 69 *Qadhimah* or *Qadheimah*, group of hamlets ; see I, p. 122.

Dir. N. by W., gradually bearing NNW.

97 28 **Rābugh**, group of hamlets ; see I, p. 122.

Dir. NNW. over open ground.

21 m. The track runs through brushwood for a few miles, and then through thin bush,

8 m. A narrow sandy path is reached.

[For a slightly variant description of the country traversed in this stage from Rābugh, see above, Route No. 27, p. 168, from Mastūrah to Rābugh.]

129 32 *Mastūrah*, village and wells ; see above, Route No. 27, p. 168.

Dir. NW.

33 m. Cross *Wādi Safrāh*.

8 m. A ruined fort is passed to l., at the head of *Sherm Bareiqa*.

2 m. Some ruins are passed to l.

35 m. A road from Medina to Yambo', through Bir Sa'id, comes in r.

Dir. W. by N., curving round to W. by S.

miles.
total. stages.

11 m. *Amsihaal* (*Musahhal*), rain pools; see above, p. 188.

6 m. Cross *Wādī Kheif*.

232 103 **YAMBO‘ EL-BAHR**, port; see I, p. 114 f.

II. ROUTE FROM JIDDAH TO RĀBUGH, ACCORDING TO SHIPLEY

JIDDAH, port; see I, p. 122 f.

Dir. N. by W., through a sandy plain devoid of vegetation. The route, throughout to Rābugh, is a mere track, worn hard in places.

30 30 *Dahban*, village of about 300 houses; wells and supplies.

60 30 *Qadhimah*, village of about 300 houses; good water.

90 30 **Rābugh**, group of hamlets; see I, p. 122.

ROUTE 36

JIDDAH (OR MECCA)—LĪTH—LOHEIA—HODEIDAH

Authorities: For the section from Jiddah to Sa‘diyah, native information compared with the Red Sea Pilot and Indian Govt. Map; for the sections from Mecca to Sa‘diyah, from Sa‘diyah to Līth, and from Loheia to Hodeidah, native information obtained by Col. R. A. Wauchope, C.B., C.M.G., C.I.E., 1916, and Turkish accounts of the Ottoman campaign in Asir in 1911 and 1912, compared with Burckhardt, 1815. For the section from Līth to Loheia, see Route No. 53.

General Direction: SSE. to Abu ‘Arīsh; then roughly S. to Hodeidah.

Distance: Crow-fly, 488 miles; road, 621 miles from Jiddah, 595 miles from Mecca.

Character and Supplies: see p. 51.

miles.
total. stages.

JIDDAH, port; p. 122 f.

Dir. S. by E. gradually diverging from the coast and following the telegraph line.

23 m. *Wādī Fātimah* is crossed.

Dir. SE., over heavy sand.

31 m. The route passes due E. of the two highest peaks of *Jebel Abu Shauk*, which are distant about 12 m. from the coast.

Dir. SSE.

86 86 *Sa‘diyah*, good well; good grazing in the extensive *wādī*, which belongs to the *Āl Jihādilah*.

miles.
total. stages.

[The following is the route from Mecca (60 m.), which joins that from Jiddah at Sa'diyah. It should be noted that Burckhardt mentions a route, which starts S. by W. from Mecca and, passing W. of *Jebel Thōr* (5 m.), arrives at Huseiniyah, 8 m. farther on; according to the Indian Government Map, this would be the route followed from Mecca to Beidha. The route below is that given by Col. Wauchope.]

MECCA, town; see I, pp. 123 ff.

Dir. S.

16 m. '*Ukeishīyah*.

20 m. *Beidha*, good wells; the inhabitants are of the 'Abādilah clan of the Ashrāf.

Dir. generally S.

24 m. *Sa'dīyah* (60 m. from Mecca); see above, m. 86 of route.

Dir. S., gradually bearing SE.

106 20 *Wādi Khadhra*, occupied by the Shi'bah (or Sha'bah), a branch of Hudheil tribe; there are good wells in the wādi.

Dir. SE., parallel to the coast.

126 20 *Beit Hadādiyah*, in Wādi el-Ghāla in the country of the Zanābihah.

Continue SE.

4 m. Wādi el-Khurkhān is passed.

138 12 **Līth**, village; see I, p. 123. Camp at *Bir el-Kalābiyah*, a short distance east of Līth.

[For the section of the coast-road through Asir, from Līth to Loheia (399 m.), see below, Route No. 53, pp. 237 ff.]

537 399 **LOHEIA** (or *Lahiyyah*), port; see I, p. 173. The first stage of the track from Loheia to Hodeidah retraverses the road to Zohrah, the last stage of that from Līth (see below, p. 242 f.); it is therefore given here in the reverse direction:

General dir. nearly E., at first across the *khabt*, passing a small Turkish guard-house.

6 m. *Naseyyib* (or *Naseib*), where are wells which supply Loheia; they are unlined, and new

miles.
total. stages.

ones are dug as old ones fall in ; water brackish but drinkable. Here the Wādi Maur is crossed and the track runs parallel to the wādi to the end of the stage.

3 m. *Qumriyah* (or *Kumariyah*).

4 m. *Dahir*.

2 m. *Udābi*.

2 m. *Qanumah*.

2 m. *Deir Sa'id*, from which it is 1 m. to end of stage.

557 20 *Zohrah*, village about 1 m. north of Wādi Maur ; there are good wells and cultivation along the wādi. A small Turkish garrison is stationed here.

Dir. S., crossing the broad Wādi Maur between Zohrah and Maur.

5 m. *Maur*, village of about 400 inhabitants ; irrigation in summer by flood-water from Wādi Maur. The track then crosses ground cultivated in places.

7 m. *Deir 'Abdullah*, village of the *Za'liyah*, a small tribe living in Wādi Maur and its neighbourhood.

8 m. Cross the dry bed of *Wādi Kofan*, and pass the small villages of *'Abadiyah* and *Dā'ūdiyah* in the Suleil country.

582 25 *Zeidiyah*, small town of about 1,000 inhabitants, the principal settlement of the Suleil, and a Turkish post ; water from wells. Some supplies may be obtained here and at Kanāwiz, another Suleil village about 4 m. north-east.

Dir. S., the country being sandy in places.

8 m. Cross *Wādi Sardūd* ; there is some cultivation here and all along the wādi.

596 14 *Turba*, small village.

Dir. a little W. of S. across the *khabt*.

8 m. *Murza'iyah*, huts and coffee-house.

10 m. *Jubānah*. From this point the track is very good to Hodeidah.

621 25 **HODEIDAH**, port ; see I, p. 171 f.

ROUTE 37

JIDDAH—MECCA

Authorities : Burckhardt, 1814 ; War Office Report, Oct. 1916 ; and Egyptian War Office Itinerary, 1916.

Direction : E. by S.

Distance : Crow-fly, 46 miles ; road, 55 miles (Burckhardt), 54½ miles (W.O. Report), or 56 miles (E. W. O. I.).

Character and Supplies : see p. 51.

A. BURCKHARDT'S ROUTE

miles.

total. stages.

JIDDAH, port ; see I, p. 122 f.

Leave the town by the Mecca Gate.

Dir. E. by S., passing by sand-mounds, and then, slightly ascending, over a sandy treeless plain, which is impregnated with salt ; the salt ceases about 2 m. from the town.

7½ m. *Raghāmah*, coffee-hut near well.

The road follows a broad winding valley between rocky or sandy hills.

8 m. *Beyādhiyah*, well and coffee-hut ; water not good.

4 m. *Ferā'inah*, poor, half-ruined coffee-huts ; water.

The valley now opens out, the hills diverging considerably and increasing in height.

3 m. *Bahrah*, hut-village ; wells of plentiful water, some sweet and some brackish ; a small market.

The track passes the ruins of a small fort on an isolated hillock.

28 28 **Haddah**, spacious coffee-huts in the form of sheds supported by pillars, and a small market. This place, or Bahrah, is usually the first halting-place on the route.

Dir. generally E. by S., over a plain of sand or clay.

3 m. The track passes a small rivulet and some date-palms to l. in a plain, and then enters hilly country.

3 m. *Shemeisah*, coffee-hut, and a well not far

miles.
total. stages.

distant; *Jebel Shemeisah* is near, where marble was formerly quarried.

The road now follows a broad valley, with deep sand and thorny trees.

6½ m. *Qahwah Sālīm*, coffee-shop and well.

The valley becomes straight and narrow, and is crossed by several transverse wādīs.

8½ m. *Hajaliyah* (or *Hajeiliyah*), coffee-hut, near a large well, at which camels are watered. Not far off are the ruins of an ancient village of stone-built houses, and in the wādi are traces of former cultivation.

2 m. A small walled date-plantation.

The road forks here, one branch continuing about E., the other turning S. and entering Mecca by the Bab el-'Omrah after about 3 m. Follow the eastern branch.

1 m. Plain of *Sheikh Mahmūd* (so called from a tomb of a saint of that name), about 3 m. long by 1 m. broad, surrounded by hills; camping-place of the Syrian Hajj. This plain is separated from the valley of Mecca by a narrow chain of hills which the road crosses by a cutting through rocks. At the summit there is a watch-tower on each side of the road. Descend by a paved road and enter Mecca by the Bāb el-Mā'la.

55 27 **MECCA**, town; see I, pp. 123 ff.

B. STATIONS ON THE ROUTE, ACCORDING TO WAR OFFICE REPORT

JIDDAH, town; see I, p. 122 f. The intermediate stages to Haddah are: 2 m., *Sebīl*; 3½ m., *Watayah*; 2 m., *Raghāmah*; 3½ m., *Markh*; 1 m., *Jarādah*; 1 m., *Fereyah* (*Ferā'inah*); 2½ m., *Zalabāniyah*; 2½ m., *Judeidah*; 2 m., *Kanafāni*; 3 m., *Bahrah*; 4½ m., *Hamra* (*Bir Abu Qurūn*); 1½ m., to Haddah.

29 29 **Haddah**, with a small running stream and a large natural reservoir for storing rain-water; date-plantations and fields of barley and vegetables; see also p. 200

miles.

total. stages.

(m. 28 of route). The intermediate stages to Mecca are : $2\frac{1}{2}$ m., *Shemeisah* ; $2\frac{1}{2}$ m., 'Alamein ; $1\frac{1}{2}$ m., *Sālim* ; 3 m., *Boghāz* ; 7 m., *Umm 'Udūd* ; $2\frac{1}{2}$ m., *Bostān* ; 3 m. *Jerwel* ; $3\frac{1}{2}$ m. to Mecca.

54½ 25½ **MECCA**, town ; see I, pp. 123 ff.

C. STATIONS ON THE ROUTE, ACCORDING TO THE EGYPTIAN
WAR OFFICE ITINERARY

JIDDAH, town ; see I, p. 122 f. The intermediate stations to Haddah are : $13\frac{1}{2}$ m., *Zalabāni* ; $3\frac{1}{2}$ m., *Jarādah*, near *Qahwat et-Temeisi* ; 5 m., *Abad* ; 4 m., *Bahriyah* (Bahrah) ; 4 m. to Haddah.

30 30 **Haddah**, see above, p. 200 f. The intermediate stations to Mecca are : 6 m., *Shemeisah* ; then past *Qahwat el-'Alamein*, *Qahwah Sālim*, *Qahwat el-Bostān* and *Maghbalīyah* (or *Hajalīyah*) ; $5\frac{1}{2}$ m. from Hajaliyah to Mecca.

56 26 **MECCA**, town ; see I, pp. 123 ff.

[Note. In the three variant accounts of the route, which are given above, considerable discrepancies will be noted both in the distances between stations and in their relative order.]

ROUTE 38

MECCA—TĀ'IF

Authority : Burckhardt, 1814, compared with the Egyptian War Office Itinerary, 1916 (Mecca to Tā'if) ; and War Office Report, October 1916 (Mecca to 'Arafāt).

Direction : Generally E. by S.

Distance : Crow-fly, 64 miles ; road, 72 miles. The distances of the three stages are those given by Burckhardt ; the detailed distances between the stages are mainly computed from his times and must be accepted with reserve.

Character and Supplies : see p. 52.

miles.

total. stages.

MECCA, town ; see I, pp. 123 ff.

Dir. N. by E. at first, past the barracks of the Sherif on the l., to the **Ma'ābdah** (Mu'ābidah) suburb.

miles.
total. stages.

Here the route turns gradually to E. by N. and follows the high road to Wādi Mina, through sandy valleys of varying width and devoid of vegetation.

2½ m. The country opens out towards the NE. and the conical hill of *Jebel en-Nūr* becomes visible, distant about 2 m.

2 m. A large stone tank, believed by Burckhardt to be *Sebīl es-Sitt*; it is filled during the Hajj from the Mecca conduit.

1½ m. Enter *Wādi Mina*, which extends E. and W. for about 1 m., by a paved causeway, and pass through the village of *Mina*, composed mostly of ruined houses. Three small columns, known as 'Satan's pillars', at which the pilgrims throw stones, are passed in the village, one to l. and two to r. of the track. Beyond *Mina*, open country is traversed.

Dir. bears E. slightly by S.

5½ m. *Mezdelifah*, a small mosque, almost in ruins, and a tank of water. The road forks, to rejoin at the 'Alamein: one branch leads over the mountains direct to 'Arafāt, and the main track goes along the Dhōb valley. Follow the latter.

1½ m. Enter *Māzumein pass* (known also as *Medheiq*) leading into the plain of 'Arafāt.

1½ m. *Bir Bazān* (Basan), a stone tank with a small chapel adjoining, in the 'Arafāt plain.

½ m. 'Alamein, two stone masonry columns on the l. of the road, marking the E. limit of the Haram.

The road goes over a plain with stunted acacia trees and shrubs.

1 m. *Jāmi' Nimrah* (or *Ibrāhīm*), a large mosque in decay, to r. of the road. *Jebel 'Arafāt* lies 2 m. distant, and almost due N., at the extremity of the plain.

1½ m. *Qahwat el-'Arafāt*, coffee-house and cluster of huts, with a small tank near. Here

miles.
total. stages.

the Mecca conduit issues from the hills. Vegetables are cultivated in a valley leading off S.

The road now becomes rocky and is enclosed between mountains; valleys cross in all directions; acacia trees occur in great abundance.

6 m. *Wādi Numan* is entered. There are some wells and a few plantations to S.

4 m. *Shedād*, cluster of huts and coffee-shops; wells of very good water.

32 32 *Jebel Qōra*. The route begins to ascend the outlying flanks of this mountain chain, which forms the great watershed between Mecca and Tā'if. From Mecca to this point the ascent has been easy and gradual, almost imperceptible.

1½ m. *Qabr er-Rafiq*, a tomb built of loose stones.

1½ m. *Qahwat el-Qōra*, a few huts among boulders on the slope of the mountain, near a stream which comes down from a spring at the head of the pass. The real ascent of *Jebel Qōra* here begins. Camels are unloaded and their burdens carried to the top of the pass by mules and asses, for which purpose some 200 are kept here. At the top other camels are ready, to carry on to Tā'if. The ascent is by a very steep and bad road, with many windings. Steps are cut in certain places, and some half a dozen resting-places have been made at intervals. The stream mentioned above is crossed several times.

5 m. *Naqb el-Ahmar*, an isolated peak (500 ft. above the track) is passed to r.

42 10 *Ras el-Qōra*, a village at the top of the pass, in a plain about 3 m. long by 1 m. broad, with large masses of granite scattered about. The plain is well irrigated by a number of small rivulets of excellent water. There are walled fields among the rocks, and fine trees. Many of the fruits of Europe flourish here, especially the vine, which produces grapes of the best quality, but there are no palms.

miles.
total. stages.

- 1½ m. The road passes a cluster of small stone- and mud-built houses of the Hudheil, with small fruit-plantations ; it then runs over uneven barren ground.
- 3½ m. The track descends a steep declivity.
- 1½ m. The declivity is left and more open ground is traversed.
- 1½ m. Enter *Wādi Mohram (Wādi Haram)*, a fertile valley full of fruit trees, with a few cultivated fields watered from wells.
- Follow the wādi down and pass a small town and a village almost entirely in ruins, on a slope close to the road.
- 11 m. Wādi Mohram is left, the track then crossing uneven mountainous ground with acacia trees in the valleys.
- 2½ m. The track ascends a hill, at the summit of which Tā'if comes into view, and crosses the barren sandy plain lying between the hills and the town.

72 30 TĀ'IF, town ; see I, p. 126 f.

The War Office Report gives the following description of the section of the route between Mecca and 'Arafāt :

miles.
total. stages.

MECCA, town ; see I, pp. 123 ff.

- 2 m. *Ma'ābdah*, the northern suburb of Mecca.
- 1½ m. *Abtah*. The route passes *Rushūd*, about ¾ m. on.
- 2 m. *Mudarraǰ el-Awwal*, a series of steps.
- 1 m. *Birkat es-Salām*. A little distance on, pass *Mudarraǰ eth-Thāni*, a second series of steps.
- ½ m. *Mina (Muna)* village, in traversing which the route passes, successively, the three *Minhadir Iblis*, or pillars of Satan ; see above, p. 203.

The road now follows *Wādi Nār*.

- 2½ m. *Mezdelifah*. The route passes the *Nakhsha-bein*, two mountains opposite each other ; *Bazān*, where there is water from the Zobei-

miles.
total stages.

dah spring, l. of the road ; and the 'Alamein, which mark the E. limit of the Haram.

- 2½ m. *Mesjid Nimrah* or *Mesjid Ibrāhīm*, a mosque.
14 14 'Arafāt (see I, p. 28) ; during the pilgrimage there are three bazaars, viz., *Sūq el-Qurein* (Grain), *Sūq Ahl Jiddah*, and *Sūq el-Kebir*.

There is an *Alternative Route* from Mecca to Tā'if, which follows a line more to the N. It is longer than the track given above, but is used by caravans wishing to avoid the difficulties of Jebel Qōra. The four daily stages are as follows :

MECCA. The track runs by way of Wādi Leimūn. About 10 m. short of the first stage (Zeimah) are several steep ascents.

Zeimah, a ruined castle at the extreme end of Wādi Leimūn ; copious springs of water.

Seil, a rivulet, which flows across a treeless plain ; abundance of pasturage.

The road now enters a mountainous tract, and goes for 6 hrs. through a difficult passage.

Agrab, situated in a high plain at about 3 hrs. distance from Tā'if.

TĀ'IF, town ; see I, p. 126 f.

ROUTE 39

TĀ'IF—BĪSHAH

Authorities: (1) Native information, collected by Col. R. A. Wauchope (1916) as to the Sherif's march in 1911 after the re-conquest of Asir; the Sherif's route is here reversed. (2) For the alternative route via 'Aqīq, Tamisier (1834) who accompanied the Egyptian force in that year; and native information collected by Burckhardt (1814–15).

Direction: SE.

Distance: Crow-fly, 180 miles; road, 197 (Sherif's route). Tamisier estimated '108 marching hours' between Tā'if and Bishah.

Character and Supplies: see p. 52.

miles.

total. stages.

TĀ'IF, town; see I, p. 126 f.

Dir. SE.

15 15 *Layah* (or *Liyah*), village; for description, see below, p. 208. The track leads over mountains for about 2 hrs. and then descends into the great plain in which Kulākh lies.

35 20 *Kulākh*, small town; water from pits in neighbouring wādi; wheat and barley, fruit, and dates are grown.

Dir. nearly E.

Wādi Nir is passed; there are wells in the wādi, which were dry when the Sherif was there.

Jebel el-Akilāt and *Jebel el-Ghurban* are passed.

63 28 *Wādi el-Khumra*.

Dir. SE., passing about 4 m. S. of *Jebel Hadhan* (Hadan), the stronghold of the Buqūm tribe, where they send their cattle, &c., for safety in time of war; water, trees, and good grazing. Farther W. are four pyramidal hills, the last of which is called *Jebel Sāk*.

91 28 **Turabah**, town; see I, p. 142.

Dir. SE., over *harrah*, going difficult; the track joins the *Wādi Kara*, in which is a running stream, irrigating date-groves of the Buqūm tribe and 'Abādilah clan.

115 24 *Wādi Kara*; camp in wādi; running water; tamarisk and acacia trees; grazing.

miles.

total. stages.

- Dir. E., leaving the Wādi Kara and traversing the *harrah*.
- 125 10 *Wādi Larimah*; camp at pool in wādi. Track continues over *harrah*.
- 149 24 *Wādi Raniyah* (or *Ranyah*); the Sherif camped in the upper course of the wādi, above the settled part where the Raniyah villages of the Sebei' tribe, with their date-groves, are situated. No details are given of the following stage.
- 159 10 [No name given for halting-place.]
Dir. SE.
8 m. wells and running water in a wādi are passed.
- 179 20 Camp in *Yuklub* country.
Dir. S., over open semi-desert country without settled inhabitants, to the Wādi Bishah in which are numerous villages.
8 m. *Nakhai'*, village.
4 m. *Dowar*, village.
- 197 18 Camp in **Wādi Bishah**; for description, see I, p. 142.

The following is an *Alternative Route* via 'Aqīq, based on data given by Tamisier. His times, both for stages and totals, are given in *hours*. No attempt has been made to compute distances in miles, since, in a footnote to his description of the route, Tamisier himself says that to 'use his table of times to this purpose would be valueless; it only gives the length of time which would be necessary for an expedition to cover the distance'. The geography of the district through which the route runs is confused.

hours.

total. stages.

TA'IF, town; see I, p. 126 f.

- Dir. E., passing at 1 hr. the country house of the Sherif. The road goes up first over even ground, then over a succession of hills.
- 5 5 *Liyah* (or *Layah*), village in a valley running ENE. to WSW.; it consists of houses grouped round a hill, which is surmounted by a fort flanked by towers commanding the road. A stream after rain (running E.) and numerous wells furnish water for the irrigation of gardens and fields.
- Dir. E. by S. down the valley, at the end of which

miles.
total. stages.

are fields of dhura ; then for $\frac{1}{2}$ hr. through a narrow defile between granite boulders. The track then enters a broad plain with *sant* (mimosa) trees, bounded to E. and S. by high mountains. This stage is entirely waterless.

- 12 7 *Bisal* (or *Bessel*), camping-place at the extremity of the plain, in a horse-shoe recess of the mountains, near an isolated rock, pyramidal in shape ; water abundant, but with disagreeable taste ; there are the ruins of a fort in the neighbourhood.

The track follows the windings of a valley, crossing some slight hills ; easy going.

- 17 5 *Medallalah*, consisting of several groups of stone- or brick-built houses on little hills, in a small wādi of the same name ; numerous wells with better water than at Bisal ; cultivation, chiefly of wheat and barley, in the bed of the valley at the foot of the hills, beyond the reach of the torrents which run after rains ; fine *nebeq* and fig-trees ; goats very numerous. The population of the place was (1834) much less numerous than formerly.

The track now follows an uninhabited valley ; many paths run side by side, so that several camels can go abreast.

- 24 7 *Ja'ah*, in a circular hollow near the masonry well *Bir el-Bāsha* (known also as *Bir esh-Sherif* and *Bir er-Raja*) ; abundant water and better than that of Medallalah, but hard ; water improves as the well is drawn upon ; $\frac{1}{2}$ hr. distant there are three similar wells.

The track climbs steep mountains and is very difficult for camels ; in places all trace of the path is lost.

Track enters a plain, which is crossed in places by shallow ravines ; mimosa trees occur ; hares and gazelles are numerous.

- 28 $\frac{1}{2}$ 4 $\frac{1}{2}$ *Bir el-Ghazālāh*, a rock-hewn well in the plain ; excellent water at 15 ft., but sufficient only for an ordinary caravan.

The track crosses the plain for 2 hrs. ; it then

miles.
total. stages.

climbs a rocky hill and descends into a sandy plain covered with thorny trees, the foliage of which makes good camel fodder.

- 34 5½ *Wādi Derra* (or *Dara*), a fine valley, with an unusually large torrent course, and vegetation which recalls that of the Nile valley; there are no wells, but water, stale and nauseous to the taste, is obtainable everywhere by digging. Women here act as camel-drivers.

Dir. SE., by a good road, passing a tumulus. The track enters a mountainous valley; it then climbs a mountain and descends into another valley, clothed with forests of *ithl* trees, through which a stream of clear water (*Seil Turabah*) runs from W. to E., the bed of the torrent-course being filled with large grey pebbles.

- 43½ 9½ **Turabah**, town; see I, p. 142.

After some little distance, the track passes ruins of rude houses to r.; it then follows a valley with a great number of mimosa trees; good grazing; hedgehogs are here unusually common.

- 53½ 9½ *Seil Ferzakh*, camping-place by a water-course, in a narrow part of the valley; fine trees. After rain the water-course becomes a torrent; at other times water is obtainable by digging.

The track proceeds for 2 hrs. along the *seil*.

Dir. E. across mountains, the track ascending by a more difficult path than any yet encountered; it then descends.

- 59½ 6 *Warakh*; water, as at Derra and Ferzakh.

Dir. SE., for some time along a valley, where tortoises and partridges are numerous. The track crosses mountains by an almost impracticable path and enters a deep gorge, filled with enormous blocks of rock, and of very rapid descent; it then emerges upon a broad plain covered with trees.

- 66½ 7½ *Kara*, a ruined village. Camp on the borders of a torrent with grassy banks; water-pits of sweet water; fish obtainable in the pools.

The track now crosses mountains.

- 71½ 5 '*Aqīq*, a village on a hillock, surrounded by date-

miles.
total. stages.

plantations and cultivation, in an enclosed plain. Near it is a large square building like a fort, and, to NW., a massive tower on the crest of the highest neighbouring peak. There is a running stream of clear water, but it is reputed to produce fever, as it traverses contaminated spots and stagnant marshes up-stream. The place is said to be less elevated and hotter than Tā'if.

Dir. E. by S., along the course of the stream for $\frac{1}{2}$ hr.; then, at a point where the stream turns abruptly N., the track climbs several barren hills and finally a very steep mountain.

76 $\frac{1}{2}$ 5 *Turah*, in a valley, shaded with *ithl* trees, and containing a clear stream with plenty of fish. This district produces hashīsh.

Dir. ESE., down the course of the stream, the track being alternately sandy and pebbly. The valley then narrows, and the track turns S. into another valley among rocky sterile mountains, down which the same stream runs intermittently; here it is known as the *Seil Ranyah*.

83 6 $\frac{1}{4}$ *Ranyah* (or *Raniyah*), camping-place in Wādi Ranyah, which runs from W. to E.; the northern bank is sandy and bare, the southern bank wooded; there were no traces of dwellings, according to Tamisier.

Dir. SE. for $\frac{1}{2}$ hr., along the bed of the wādi; the track then leaves the wādi to l., and turns S. It enters a valley, rocky at first, then sandy, and reaches a waterless plain, where the going is easy.

90 $\frac{1}{2}$ 7 $\frac{1}{2}$ *Camp*, in the plain.

Dir. S. by E., continuing by a good track over even ground, but with here and there a short defile. For a short space along this part of the route there are traces of parallel walls, which flanked the track.

97 6 $\frac{1}{2}$ *Thaniyah* (or *Thinīyah*), several hamlets and one large mud-walled village protected by four round towers of brick, in a wādi about 10 m. long and from 1 to 3 m. in width; total population about

miles.
total. stages.

2,500 (?); extensive date-plantations, from which dates are exported to Jiddah or Qunfudah; good breeds of camels and horses. There are numerous small gardens producing chiefly wheat, barley, and melons. The rain suffices for the cultivation, but water is also raised by the *saqiyyah*; the climate is reputed to be very hot.

Dir. continues S. by E., through date-plantations for 2 hrs. There are sentinel towers along the route which is here lined with cypress trees. The road then crosses sterile ground, winds among clumps of cypress, enters a sandy water-course, winds again among wooded ground, enters a plain full of cypress, crosses hills dotted with black stones, and finally traverses a waste of sterile sand.

108 11 **Bishah** : for description, see I, p. 142.

It should be added that Burckhardt gives the following stages and times between Tā'if and Bishah : 4 hrs. to *Liyah* ; 2 hrs., *Bisal* (*Bessel*) ; 7 hrs., *Kulākh* ; 18 hrs., *Turabah* ; 2 days, *Ranyah* ; 3 or 4 days, *Bishah*.

E. SOUTH-WESTERN ROUTES

ROUTE 40

IBHA—DARB

(Darb Beni Shi'bah)

Authority : Native information.

General Direction : SSW.

Distance : Crow-fly, 38 miles ; road, 46 miles.

Character and Supplies : see pp. 53 ff.

miles.

total. stages.

IBHA (EBHA), town ; see I, p. 142.

Dir. SSW. over a fertile plateau, belonging to the Beni Mugheid, for about 2 miles till the abrupt descent down *'Aqabat el-Hamra* begins. The character of this country changes and is a tangle of well-wooded mountains until the maritime plain is reached. The road winds down the mountains.

6 m. *Ma'atan*, where there is a running stream. The road joins *Wādi Dhil'a* and continues down it.

2 m. *B'usa*, a clearing in the woods and a resort of nomad Arabs.

6 m. *Wādi Hilāli*, the boundary between the Beni Mugheid and Rabi'at el-Yemen is crossed. *Mikhad Rabi'ah* is passed, *Ghaina*, and *'Itwid ('Itwad)* 2 miles farther on—all places where the nomads gather.

22½ 22½ *Jebel Karman*. *Wādi Dhil'a*, which always contains running water, is joined here by *Wādi Kheisha'*, and the track joins the road from Badlah.

2 m. *Janbein*, a narrow gorge between two mountains, after which the country becomes more level and the forests cease.

miles.
total. stages.

- 2 m. *Muqta' el-Kheil* : 4 wells of good water.
 4 m. *Heidat et-Tihāmīyah*, where there are rocks with ancient inscriptions and engravings. The road from Khamīs Musheit comes in here, and the Wādi Shahla joins the Wādi Dhil'a. Thence over a grass-covered plain.
 7 m. *Qasabah*, small village belonging to the Beni Shi'bah. From here on there are cultivated patches of *dhura* and *dukhn*, with plenty of shade from 'aruj trees in the Wādi Dhil'a. The high peak of Jebel 'Itwid ('Itwad) is on the right.
 8 m. 'Askar, a large village ; cotton grown.
 46 23½ **Darb**, large village and head-quarters of Beni Shi'bah. The Idrīsī has a representative here. Darb is on the main Tihāmāh road from Qunfudah to Sabia (Sabīyah).

ROUTE 41

IBHA—SABIA

Authority : Native information.
General Direction : slightly E. of S.
Distance : Crow-fly, 61 miles ; road, 76 miles.
Character and Supplies : see pp. 53 ff.

miles.
total. stages.

- IBHA**, town ; see I, p. 142.
 Dir. SE. [For the first 12 m. of the route, as far as Dhibat Āl Jihāl, see below, Route No. 42, p. 215 f.]
 12 m. *Dhibat Āl Jihāl*, village ; see below, p. 216.
 Dir. generally southerly, the road ascending over hilly country.
 18 18 *Āl Umm Jizā'*, small village belonging to the Āl Yinfa'ah section of the Shahrān. After 2 m. the road goes up the steep and precipitous pass of 'Aqabat es-Sulb.

miles.
total. stages.

- 6½ m. *Sahn*, large village of 250 houses on the top of the 'Aqabah. This is the beginning of the fertile district of *Temnīyah* (*Thimnīyah*), and the road passes over a lofty and well-cultivated plateau.
- 8 m. *Tör el-Jahārah*, small village.
The district of *Temnīyah* is left. The road winds down a steep and wooded gorge.
- 37½ 19½ *Tihāmat el-Jahārah*, camping-ground.
- 6 m. *Jebel Qahar*; scattered houses. Coffee and cereals cultivated. Still descending, the boundaries first of the Reith and then of *Beni Majūr* and *Āl A'rābi*, nomad sections of the *Shahrān*, are passed. After 12 miles the road debouches from the hills, and crossing the *Shahrān* boundary, enters the district of *Mikhlāf el-Yemen* and the territory of the *Naj'u* nomads.
- 64½ 27 **Hajj es-Sabbami**, large village. The road leads over a cultivated plain.
- 5½ m. **Shahādah**, large village.
- 5 m. *Adeyyah*, small village.
- 76 11½ **SABIA (SABIYAH)**, town; see I, p. 143.

ROUTE 42

IBHA—DAHRĀN

(*Tariq es-Sultāni*)

Authority: Native information.

General Direction: SE.

Distance: Crow-fly, 102 miles; road, 107½ miles.

Character and Supplies: see pp. 53 ff.

miles.
total. stages.

IBHA, town; see I, p. 142.

Dir. SE. through almost level country.

3 m. *Hadhbah Beni Jura'i*, stone-built village.

Beni Mugheid territory is left and **Āl**

miles.

total. stages.

Sirhān section of the Shahrān entered. Road goes through gum forest.

3 m. *Al Ferza'*, small village.

3 m. *Dhibat Al Sirhān*, small village. Houses in villages, from now on, are of mud and stone. Cultivation at frequent intervals, wheat, barley, *dhura*, and *bersim*.

1 m. *Muhārith*, small village.

2 m. *Dhibat Al Jihāl*, small village. Road to Sabia goes off right. The Sha'af Rashhah section of the Shahrān is entered.

2 m. **Masqi** (Musji ?), large village of over 200 houses.

1 m. *Jarr Beni Jabraḥ*, a wadi with villages.

2 m. *Qurra'a*, small village.

1 m. *Qelt*, small village.

The road passes from Shahrān territory to Rufeidat el-Yemen (Qahtān).

1 m. *Al Ramadhān*, small village.

20½ 20½ *Bishat Ibn Salīm*, a fertile wādi with several villages, of which the most important, **Sūq el-Aḥad Rufeidah**, a large market, is half an hour to the north. Road crosses wādi.

2 m. *Al Abu Midriḥ*, small village. Road now descends steeply through rather hilly country.

3½ m. *Bōthah*, small village.

The road passes through an extensive gum-forest, known as *El-Mahjar*, and after 7 miles enters a narrow gorge, called *Darb el-Uqeidah*, which is a favourite resort of robbers and is in the country of the Beni Qeis section of the Rufeidat el-Yemen.

10 m. *Mudhiq*, a small spring. A few miles farther on the *Darb el-Uqeidah* ends.

46 25½ *Fara'ain*, mountain and village of the same name. Road now goes down hill and enters the territory of the Sha'af Yarimah wa Khutab section of the Rufeidat el-Yemen.

3 m. *Zāribah*, small village. Over level country.

2 m. *Darb Salmān*, where a notorious highwayman named Salmān was killed. Gum forest.

miles.
total. stages.

3 m. *Waqashah*, small village surrounded by cultivation.

Rufeidat el-Yemen territory ends and 'Abidah (Qahtān) begins. The country grows less fertile, but there is cultivation from wells round all the villages. The road descends.

2 m. *Āl Saqr* (Sadr?), small village and headquarters of the *Āl Saqr* (Sadr?) division of the 'Abidah.

The Beni Talaq division is reached.

66 20 **Wahābah**, large village of 250 houses.

$3\frac{1}{2}$ m. *Āl Ferdān*, small village.

3 m. *Āl 'Abis*, small village.

The road leaves 'Abidah territory and enters Beni Bishr (Qahtān). Country becomes more hilly with occasional woods.

5 m. **Uṣrān**, large village of 300 houses. Good cultivation. A small stream, known as '*Ain el-Mukharrazah*', runs through the village.

1 m. *Mufarrij*, small village.

4 m. *Shaqb*, small village.

$2\frac{1}{2}$ m. *Āl Ferhat*, small village.

$\frac{1}{2}$ m. *Āl Umm 'Ā'idh*, small village.

86 20 '*Abidiyah*, small village.

The road comes out on more level country and enters the territory of the Shereif.

$1\frac{1}{2}$ m. *Beidha*, small village.

$3\frac{1}{2}$ m. *Āl Seri*, small village.

$3\frac{1}{2}$ m. *Hamra*, small village.

3 m. **Harajah**, large village of 200 houses; formerly a Turkish *Markaz*. Residence of Mohammed ibn Dhuleim, the Emir of all the Qahtān tribes.

The road enters the country of the Senhān el-Hibāb (Qahtān).

3 m. **Rāhah Senhān**, large village of 300 houses and the chief market in Senhān el-Hibāb.

2 m. *Hadhb*, small village.

$\frac{1}{2}$ m. *Khadd*.

After 3 miles the road crosses the boundary of the Wadā'ah (Qahtān) tribe and district.

miles.

total. stages.

107½ 21½ **Dahrān**, chief village of the Wadā'ah. A market is held every day, chiefly for the coffee which is exported from Jebel Razah and district. The road now turns S. on the way to Sa'dah, crosses the Wadā'ah boundary after about 6 miles and so enters Yemen from Asir.

ROUTE 43

IBHA—BĪSHAH

Authority: (1) Native information. (2) The variant account of the route is taken from native information as to the Sherif's march in 1911, after the reconquest of Asir.

Direction: NNE.

Distance: Crow-fly, 139 miles; road, 154½ or 164 miles.

Character and Supplies: see pp. 53 ff.

miles.

total. stages.

IBHA, town; see I, p. 142.

Dir. generally NE., down a slight slope along *Wadi Ibha*.

3 m. *Juhān*, small village.

The road passes from the Beni Mugheid to Beni Mālik territory.

3 m. *Sirr La'sān*, small stone-built village.

2 m. *Hijla*, small stone-built village.

1 m. *Nijadhān*, small gum plantation.

Shahrān territory is now entered.

1 m. 'Atara, small wādī and village of the same name, belonging to the Āl Ghamar section of the Shahrān.

1 m. 'Itwid, large village of mud houses.

12 12 **Sūq Khamīs Musheit**, town; see I, p. 143.

½ m. *Jambar*, small mud-built village, belonging to the Āl Rusheid section of the Shahrān.

1 m. *Soma'dah*, village like Jambar.

9½ m. *Wādī Ghairan Muhra*, where a perennial spring is crossed and the country of the Beni Bijad section of the Shahrān is entered. The

miles.
total. stages.

country, which has been fertile from Ibha, now changes to desert.

27½ 15½ *Jinfur* (or *Janfur*), isolated village, belonging to the Beni Mālik ; good wells and some cultivation.

Cross arid country belonging to the Beni Bijad.

12 m. *Rashda'*, village near the junction of Wādi Ibha and *Wādi Shahrān* ; it is said to stand 200 metres lower than Ibha.

Turn N., always keeping near the Wādi Shahrān and passing through well-cultivated lands, producing barley, wheat, and fruits.

2 m. *Āl Batāt*, small village.

2½ m. *Āl Bithor*, large village.

2 m. *Āl Umm Zeitil* (*Seital*), large village.

3 m. *Ghireirah*, large village.

51 23½ *Shajrah*, large village.

12 m. *Shafān*, large village.

The cultivation now entirely ceases and the road crosses a waterless country.

71 20 **Museiriq** (or *Masīraq*), large village surrounded by cultivation.

The road leaves the Beni Bijad country and enters that of the Beni Wahhāb section of the Shahrān ; thence a waterless desert to end of stage.

96 25 *Khadhra*, wādi and village of the same name, with some date trees and cultivation. The country is again waterless for 10 miles, when a few wells at *Fidayah* are passed.

108½ 12½ *Bir Umm Sarar*, where there are 9 good wells. Road continues over desert.

12 m. *M'atan*, where there is a good well. The desert continues and, after about 12 miles, the Beni Wahhāb territory gives way to the Beni Sulūl section of the Shahrān.

132½ 24 **Raushin** (*Roshin*), chief village of the Beni Sulūl. Raushin is a large village and is the beginning of the fertile oasis of Bīshah, which is noted for its dates, and also grows wheat, barley, *dhura*, vegetables, lemons, and oranges. Continue through fertile country.

miles.
total. stages.

12 m. **Hifa**, large village, belonging to the Mo'āwiyah section of the Shahrān.

2 m. *Āl Khālīt*, small village.

4 m. **Nimrān**, the largest village in the district, consisting of some 500 mud houses.

154½ 22 **Qal'ah Bishah**, ruined castle, marking the end of the Bīshah oasis; see I, p. 142.

The road continues in the direction of Nejd.

The following is a *variant* of the same route, which was taken by the Sherif in 1911, when a force of 5,000 Arabs, or more, with camel transport and 100-200 horses, passed along it in one party, and there appears to have been no scarcity of water:

IBHA town; see I, p. 142.

Dir. NE. down the Wādi Ibha, passing villages of the Beni Mālik.

20 20 Beni Mālik village (name of halting-place not given).

Continue NE. down wādi to its junction with the Wādi Shahrān.

8 m. *Janfur* (or *Jinfur*), the last of the Beni Mālik villages; the country of the Shahrān is now entered.

40 20 *Wādi Rāshid*, apparently the local name for the Wādi Shahrān. It is a broad valley with many wells, and produces wheat, barley and fruit; the climate is temperate as compared with the extreme cold of Ibha.

Dir. N. down the main valley.

65 25 *Wādi Masīraq* (or *Museiriq*), apparently the local name for the Wādi Shahrān.

Continue N. down the valley.

89 24 *Wādi 'Arāq*, apparently the local name for the Wādi Shahrān; here are palm-trees and tamarisk jungle.

Continue N. down valley.

6 m. *Wādi Khadhra* is passed; some cultivation, irrigated by wells. Some miles further on the *Wādi Fidayah* is reached, apparently the local name for the Wādi Shahrān.

	miles.	
total.	stages.	
119	30	<i>Wādi Fidayah</i> . Camp in the wādi ; the people here are tent-dwellers and have large flocks of sheep and goats and camels. Continue N. down the valley.
144	25	<i>Wādi Shahrān</i> , name of halting-place not given. Continue N. down the valley to the beginning of the Bishah villages.
164	20	Wādi Bishah , containing an extensive oasis with some thirty villages ; see I, p. 142.

ROUTE 44

IBHA—TĀ'IF

(Sikkat es-Sultāni)

Authority : Native information.*Direction* : NNW.*Distance* : Crow-fly, 235 miles ; road, 278½ miles.*Character and Supplies* : see pp. 53 ff.

miles.
total. stages.

IBHA, town ; see I, p. 142.

Dir. due N. over a level plateau thickly cultivated and with frequent villages. After 2 miles the Beni Mugheid boundary is passed.

2 m. *'Ain Ibn Musāfi*, the first village of *'Alqam el-Hūl*. Two miles farther on *Jabrat Anjūd*, the last *'Alqam el-Hūl* village, is passed and the country of the Beni Rizām section of the Beni Mālik is entered. The country is well watered and fertile, and supplies Ibha with fruit.

9 m. *Jebel Sha'r* is reached. The Ibha to Muhā'il road (see Route No. 45) branches off down the *'Aqabah Sha'r*. Continue northwards along the plateau.

3½ m. *Meiza'a*, small village. Two miles farther on the Beni Mālik boundary ends and the Balahmar begins.

miles.

total. stages.

18 $\frac{1}{2}$ 18 $\frac{1}{2}$ *Wādi Ibl*, which contains several villages, is passed.

1 m. *Darajah*, a narrow gorge between 2 hills, where the Sherif gained a victory in 1910. Continue over hilly country with patches of cultivation.

6 m. The forest of *Dhōhi* is entered.

2 m. *Jebel Khōdāt* is passed on the west.

2 m. *Shijr*, small village.

1 m. *Mowein*, small village.

3 m. *Āl A'mer*, small village.

$\frac{1}{2}$ m. *Āl Umm Sha'ir*, small village.

2 m. *Bu'akah*, small village.

41 22 $\frac{1}{2}$ *Beiha*n, small village in a wādi of the same name.

The road enters the Beiha pass and the Balasmar territory.

1 m. *Madfa'*, a village. The road now passes through hilly and well-wooded country.

6 $\frac{1}{2}$ m. *Hudwah*, wādi with scattered farms. *Jebel Sadwān* is close to the road on the W. Immediately after, the Balasmar territory ends and that of Beni Shihir begins.

1 m. **Tanūmah**, large village of about 200 stone houses, with other villages near; former Turkish *Markaz*. Wādi Tanūmah always contains running water. Country is well irrigated, and wheat, barley, and lentils grow in abundance.

1 m. **Sabt Ibn El-'Arif**, large stone-built village in valley surrounded by hills. A big market is held here every Saturday. After crossing *Wādi Laghr*, in which there is running water and irrigation-channels, the road goes up a steep and rocky gorge between two mountains known as *Meshehadein*.

54 13 *Dhahārah*, on the top of the 'aqabah, a small village belonging to the Beni Mashhūr section of the Beni Shihir. The road now continues over fertile and undulating country, in which the main crops are *dhura*, wheat, potatoes, onions, and *bersim*.

miles.
total. stages.

- 4½ m. **Namas**, large village of about 400 stone-built houses and formerly a Turkish *Mudiriya*. This is said to be the highest village in Asir and to have the coldest climate.
The country now becomes more level, and is well cultivated.
- 4 m. *Akhādhirah*, small village ; several small villages are passed.
- 70 16 **'Asābili** (Asabeili) village, consisting of about 30 large three-storied stone-built houses, each standing in a large compound with gardens and dependencies ; it is the seat of the ruling family of the Beni Shihir.
The road now goes through a fertile plain with frequent villages.
- 94 24 *Sadr*, small village. Road, which has run in a general northerly direction from Ibha, turns NNW.
- 1 m. *Halabah*, small village.
- 1 m. *Rubū' es-Sarw*, small village.
- 1½ m. *Idwah*, small village.
- 3 m. *Wādi Buweirah* is crossed, and Jebel Sha'af and Jebel Shih are left on the W.
- 1 m. *'Uqrum*, small village. The Beni Shihir boundary is passed and the Beni 'Amr territory entered.
- ½ m. *Sahwah*, small village. The road enters mountainous and well-wooded country ; it ascends for an hour *'Aqabah Beni 'Amr* and runs thence through mountains.
- 108½ 14½ **Shij**, village ; residence of the chief Sheikh of the Beni 'Amr. Other small villages are close by. The Bulqarn country is now entered and the villages of the Āl Kusheim section ; the road goes through fertile country.
- 8 m. *'Aqabat el-Isna*, a small acclivity.
- 4 m. *'Aqabat el-Jummar*, an ascent of 2 hours.
- 4 m. *Nakhlah*, small village with a date-grove.
- ½ m. **Tabālah** (Teballa), large wādi containing about 30 villages and excellent cultivation.
The road now leaves Bulqarn and enters Khath'am territory.

miles.

total. stages.

$\frac{1}{2}$ m. *Lasfar*, small village. The country becomes more mountainous, and the high mountain of *Jebel Mishriq* (Mishrig) is passed after 3 miles. The road now enters Shamrān country; 1 mile to end of stage.

129 $\frac{1}{2}$ 21 *Elbalus*, a lofty mountain containing springs. Coffee is grown on its slopes, and there are several villages.

The road goes WNW. through hilly and wooded country with occasional villages and patches of cultivation, and after 5 $\frac{1}{2}$ miles descends for 2 $\frac{1}{2}$ hours the steep pass of '*Aqabah Hamatah* and winds through hilly country.

148 $\frac{1}{2}$ 19 *Saura*, small village.

$\frac{1}{2}$ m. *Aura*, small village.

The road leaves Shamrān territory and enters Ghāmid. After 7 miles the steep pass of '*Aqabat edh-Dhafir* (Dhofir), which takes 5 hours to descend, is reached; then the road debouches on a fertile plain where fruits, wheat, barley, and beans are grown.

170 21 $\frac{1}{2}$ *Bāh*, large village of about 250 houses.

2 m. *Ramādah*, small village.

6 $\frac{1}{2}$ m. *Muktil el-Bāsha*, small village.

1 m. *Rahwat el-Burra*, small village.

This is the last Ghāmid village, and Zahrān territory is entered.

$\frac{1}{2}$ m. Road crosses *Wādi Shibriqa* and begins to ascend NW. through hilly country.

181 11 *Mendak*, a small village.

3 m. '*Aqabat Aseidan*, a steep pass taking 4 hours to surmount. Thence the road goes over hilly country to end of stage.

211 30 *Wādi Lus*, the boundary between the Zahrān and the Beni Mālik.

$\frac{1}{2}$ m. *Qaryat Ibn Ghazālah*, the village of the chief Beni Mālik Sheikh.

After a mile the road descends the very rough and difficult pass of '*Aqabah Jidarah* for 5 hours, and comes out on a level and cultivated plain going NNW.

miles.
total. stages.

11½ m. *Seyyalan*, a collection of villages in Wādi Seyyalan.

The Nāsirah territory is now entered, and the road continues through hilly country which grows more arid as one goes N. to Jebel Ka'u.

228 17 *Jebel Ka'u*, a large mountain at the foot of which are villages and cultivation.

The road now enters the territory of the Beni Sa'd.
3 m. *Kuthrub*, large village.

11½ m. *Lahda*, fertile valley with fruits and cereals.
The boundary of the Beni Thaqif is passed and the road runs almost north.

243 15 *Qalb en-Na'l*, small village.

The country is hilly and barren, with very occasional villages and patches of cultivation.

271 28 *Sinn*, the last village of the Beni Thaqif.

Road passes through fertile country to Tā'if.

278½ 7½ **TĀ'IF**, town; see I, p. 126 f.

[An *Alternative Route* from Ibha to Tā'if runs by way of the Wādi Bishah; see Route No. 43, Ibha-Bishah, and Route No. 39, Tā'if-Bishah, the latter being traversed in the reverse direction.]

ROUTE 45

IBHA—MUHĀ'IL

(Via Wādi Tayyah)

Authority: Native information.

General Direction: NNW.

Distance: Crow-fly, 53½ miles; road, 64 miles.

Character and Supplies: see pp. 53 ff.

miles.
total. stages.

IBHA, town; see I, p. 142.

Dir. due N. over a level plateau thickly cultivated and with frequent villages.

After two miles the Beni Mugheid boundary is passed.

miles.
total. stages.

2 m. *'Ain Musāfi*, the first village of *'Alqam el-Hūl*.

Two miles farther on *Jabrat Anjūd*, the last *'Alqam el-Hūl* village, is passed and the country of the Beni Rizām section of the Beni Mālik is reached. The country is fertile and well watered, and supplies *Ibha* with fruit.

7 m. *Jebel Sha'r* is reached. The main road continues along the plateau. The road under consideration turns off sharply WNW., and plunging down the steep declivity of *'Aqabah Sha'r*, after 3 miles reaches *Sai*, which is the usual resting-place before beginning the ascent.

The Beni Mālik country ends near the top of the plateau and *Sai* belongs to the *Āl edh-Dhi'b* section of the *Rabī'ah wa Rufeidah*. This is the beginning of the *Wādi Tayyah* which joins the *Wādi Ahābesh* at *Muhā'il*. Going down the *Wādi Tayyah* through a barren and arid valley, after $3\frac{1}{2}$ miles *Karāthah* is reached.

$8\frac{1}{2}$ m. *Karāthah*, a resting-place for caravans.

Dir. NNW. Occasionally water.

2 m. *Bara*, as above.

24 24 *M'a Beirur*, small village with good water.

This is the head-quarters of the *Āl Hārith* section of the *Rabī'ah wa Rufeidah*, a wild and lawless collection of robbers. Some cultivation round the village. Thence through desolate country.

5 m. *Lasāfah*, where there are some shady trees, but no water.

5 m. *Was'ah*, as above. The *Āl Nahyah* section of the *Āl Hārith* wander over this country.

46 22 *Mandar Nakhlein*, a small but perennial spring and a little cultivation during the rains.

3 m. *Wādi Sha'b el-Asla* joins *Wādi Tayyah* and forms the boundary between the *Rabī'ah wa Rufeidah* and the *Beni Thuwwah*.

Dir. WNW.

miles.
total. stages.

- 3 m. *Hisn Thuwwah*, a ruined and deserted village.
- 3 m. *Ida*, a small stone-built village. Water has to be brought a distance of two hours.
- 1 m. *Hāfir*, small stone-built village; good water. The country now becomes more fertile, and there is frequent cultivation to Muhā'il.
- 2½ m. *Butūh*, a small village and the last one belonging to the Beni Thuwwah.
- 4½ m. *Dirs*, small village. The Āl Mūsa country is now entered.

64 18 **MUHĀ'IL**, town; see I, p. 142 f.

ROUTE 46

IBHA—MUHĀ'IL

(Via Sheibein)

Authority : Native information.

General Direction : NNW.

Distance : Crow-fly, 53½ miles; road, 72 miles.

Character and Supplies : see p. 54 f.

miles.
total. stages.

IBHA, town; see I, p. 142.

Dir. W., through Beni Mugheid country over a well-cultivated and level plateau.

- 6 m. *Shebārijah*, small stone-built village.
- 1 m. *Umm Shahrāh*, small stone-built village.
- 3 m. *Baddlah*, small stone-built village. After 2 miles the Beni Mugheid boundary ends, and that of 'Alqam el-Hūl begins.
- 3 m. *Gharwa*, small stone-built village.
- 19 19 **Sūda**, a large village of about 250 stone houses. This is the last village of 'Alqam el-Hūl, and the road enters Rabi'ah wa Rufeidah territory.
- 2 m. *Teihān*, small village.
- 1 m. *Sharaf*, small village and the last of Rabi'ah wa Rufeidah; the Rijāl el-M'a country (Beni Qutābah) is now entered. Sharaf is

miles.

total. stages.

on the edge of the plateau, and the road winds down the steep gradient of 'Aqabah Soma over difficult ground.

8 m. *Ma Arjub*, where the road reaches the broad and fertile valley of *Wādi 'Ūs*. *Dhura*, *dukhn*, and wheat are plentifully grown in the wādi, and coffee on the slopes of the hills.

36 17 **Sheibein**, an important market village of about 300 stone houses, where the *Wādi 'Ūs* flows into the *Wādi Ahābesh* and the road from *Wahlah* comes in (Route No. 47).

From here the road runs in a general northerly direction, through mountainous country.

3 m. to *Athālif*, a small village.

Here the sub-tribe of *Beni Qutābah* ends and that of the *Umm Bina* begins.

The road now goes down the *Wādi Ahābesh* through occasional cultivation and scattered stone-built villages.

3 m. *Sahar*. Large village.

6 m. *Wādi Namārah* (or *Nimr*) here joins the *Wādi Ahābesh*. Soon after the *Rijāl el-M'a* territory ends and that of *Beni Thuwwah* begins.

2½ m. *Hisn Beni Thuwwah*, small stone-built village. Continue through cultivated lands.

55½ 19½ *Āl Ghanīyah*, small village, is reached.

The fertile territory of the *Beni Thuwwah* continues for another 9 miles to *Jebel Heilah*.

9 m. *Jebel Heilah*, which marks the *Āl Mūsa* boundary.

3 m. *Bir el-Ghalila*, the chief water-supply of *Muhā'il*; 4½ m. to end of stage.

72 16½ **MUHA'IL**, town; see I, p. 142 f.; it is situated at the point where the *Wādi Ahābesh* joins the *Wādi Tayyah*, their united waters soon after joining the *Wādi Dofa'*, which enters the sea in the *Hali* district.

ROUTE 47

IBHA—WAHLAH

Authority : Native information.

General Direction : WNW. ; then SSW.

Distance : Crow-fly, 46½ miles ; road, 71 miles

Character and Supplies : see p. 54 f.

miles.
total. stages.

IBHA, town ; see I, p. 142.

Dir generally WNW. [For the first two stages of the route, as far as Sheibein, see above, Route No. 46, p. 227 f.]

36 36 **Sheibein**, village ; see above, p. 228. From Sheibein the road, still continuing through Rijāl el-M'a territory and turning almost due S., winds through rugged and well-wooded country.

4 m. 'Aqabat er-Riz, a steep and winding descent to Rijāl.

2½ m. **Rijāl**, the most important village of Rijāl el-M'a.

Descend the *Wādi Rijāl* to Betilah.

3 m. **Betilah**, small village of stone-built houses in *Wādi Rim*.

Descend *Wādi Rim*.

2 m. **Kisān**, village of about 200 stone-built houses. *Dukhn* and *dhura* are grown in the neighbourhood. Still descending *Wādi Rim*, the road goes SSW. through hilly and well-wooded country (*dōm* and 'aruj).

55 19 **Mahlīyah**, small village of straw huts.

7 m. The road comes out on a flat and sandy plain with occasional patches of cultivation and *dōm* trees in the *wādi*.

1 m. Cross *Ma ed-Dahyan*, a small *wādi* which joins the *Wādi Rim* and separates the Rijāl el-M'a from the Munjahah.

71 16 **Wahlah**, small village surrounded by sparse cultivation, on the main maritime road, 6 miles SE. of Widān.

ROUTE 48

MUHĀ'IL—TANŪMAH

Authority : Native information.

General Direction : slightly S. of E.

Distance : Crow-fly, 32 miles; road, 41 miles.

Character and Supplies : see p. 54 f.

miles.
total. stages.

MUHĀ'IL, town; see I, p. 142 f.

Dir. NE. over a fertile plain.

2½ m. *Hamata*, small village.

2 m. 'Alama, small village.

Road passes from Āl Mūsa to Reish territory.

1½ m. **Umm Sha'thah**, large village of about 300 stone-built houses.

1½ m. *Sakan er-Reish*, fair-sized village.

1½ m. *Hajju*, small village.

½ m. *Hadhān*, a fair-sized village.

Dir. SE.

3 m. *Madba'*, small village.

Road ascends hilly cultivated country.

4½ m. *Qarn el-M'a*, small village.

2½ m. *Quddūs*, small village.

Road passes from Reish to Balasmar territory. Still ascending.

22 22 **Khamis Makhādah**, large village of about 200 houses; big market held every Thursday. Road passes through woods and hills with coffee terraces.

5 m. *Dhirwa*, small village.

Dir. E.

3 m. *Jebel Haddah*, several villages; coffee centre.

After 5 miles road enters Beni Shihir country.

41 19 **Tanūmah**, large village; see above, p. 222.

ROUTE 49

MUHĀ'IL—QUNFUDAH (VIA BARAK)

(Tariq es-Sultāni or Sikkat el-Barak.)

Authority: Native information.*General Direction*: N. and then W.*Distance*: Crow-fly, 72 miles; road, 106½ miles.*Character and Supplies*: see p. 54 f.

miles.

total. stages.

MUHĀ'IL, town; see I, p. 142 f.

Dir. NW. over level cultivated country through Āl Mūsa territory.

7 m. *Turqush*, small stone-built village. Road enters Āl ed-Dureib.4½ m. *Musabbah*, small village, where the Sikkat el-Helāwiyah to Qunfudah branches off (see below, Route No. 50, p. 233).

Dir. due N.

5½ m. Cross *Wādi Baqr* (Buqr), the boundary between Āl ed-Dureib and Āl Jebāli. *Wādi Baqr* always contains running water.The rich district of *Baruk* is now entered, containing more than 50 villages and excellent cultivation. After about 4 miles the road enters *Humeidah* territory, and 5 miles farther on reaches end of stage.26 26 **Sūq el-A'jamah**, a large village of about 300 stone houses, former seat of a Turkish *Markaz* and the most important market (held on Wednesdays) of the neighbourhood. Road still passes through a well-watered country.9 m. *Hasam*, small village. The road here turns almost due W., and after 1½ miles begins to descend the steep and narrow gorge of *ʿAqabat es-Sahil*, which the Sherif of Mecca forced with difficulty in 1910. After 3 miles of difficult and densely wooded country *Wādi Sahil* is reached, and the road follows down the wādi, flanked on either

miles.
total. stages

side by lofty mountains for $8\frac{1}{2}$ miles to end of stage.

- 48 22 *Ghār el-Hindi*, where road joins *Wādi Yiba*. There is no village, but a large rock cave affords shelter. The Humeidah boundary ends here and that of Rabi'ah Mujātirah begins.

Dir. SW. through woods by the side of the *Wādi Yiba*, which generally contains flowing water.

$5\frac{1}{2}$ m. *Helf*, a resort of nomads.

3 m. *Markh*, a resort of nomads.

$2\frac{1}{2}$ m. *Hajaya*, a narrow gorge.

2 m. *Tahūn en-Nasrāni*, a nomad resort.

3 m. *Khurs*, a nomad resort.

- $68\frac{1}{2}$ $20\frac{1}{2}$ **Jamā'ah Rabi'ah**, where the road from Sabt el-'Umr joins and the Rabi'ah Mujātirah boundary ends. *Jumā'ah Rabi'ah* lies in a fertile valley amongst hills, and consists of about 20 stone-built houses. An important market is held every Friday and the country produces 3 crops yearly, *dukhn*, *dhura*, *simsim*, indigo, limes, and vegetables being grown.

The road here leaves *Wādi Yiba* and goes WNW. through *Belā'ir* territory, passing about a dozen villages surrounded by cultivation, of which the most important is *Sūq el-Habil*.

12 m. *Sūq el-Habil*, small village with market.

6 m. *Mishrif*, small village in *Wādi Mishrif*.

Road goes due W. down the wādi.

- $89\frac{1}{2}$ 21 **Jōz Belā'ir**, large village of about 800 straw huts and a Turkish *Markaz*. The *Sikkat el-Helāwiyah* (see Route No. 50) joins at this point.

The road leaves the wādi here and continues over level country with patches of cultivation to *Qunfudah*.

1 m. A small settlement of *Manādil Ashrāf*.

4 m. The road enters the *Beni Zeid* boundaries.

$4\frac{1}{2}$ m. **Dār el-Wādi**, large village of about 400 straw huts.

$1\frac{1}{2}$ m. The village of *Mashā'ikh* and, in close succession, the small villages of *Zayālah* and *Jā'*.

miles.
total. stages.

- 3 m. *Nakhl Ibn 'Abd el-Qādir*, small village with a palm-grove. Cotton is grown here.
 $\frac{1}{2}$ m. *Hafeir*, 100 good wells; the main water-supply of Qunfudah.
 $\frac{1}{2}$ m. *Jinna el-A'la*, a small white mound.
 106 $\frac{1}{2}$ 17 **QUNFUDAH**, port; see I, p. 143 f.

ROUTE 50

MUHĀ'IL—QUNFUDAH

(Sikkat el-Helāwiyah)

Authority: Native information.
General Direction: NW. by W.
Distance: Crow-fly, 72 miles; road, 87 miles.
Character and Supplies: see p. 54 f.

miles.
total. stages.

- MUHĀ'IL**, town; see I, p. 142 f. [For details of the route to Musabbah, see Route No. 49, p. 231.]
 11 $\frac{1}{2}$ m. *Musabbah*.
 Dir. almost due W., through hilly and well-cultivated country.
 3 m. *'Ain ed-Dureib*, small village.
 1 $\frac{1}{2}$ m. *Rāhah*, a small village. Cultivation ceases, and road descends abruptly to Wādi Helāwiyah and after 3 miles to end of stage.
 19 19 *Ma'mal Āl Ikhleif*, small stone-built village surrounded by cultivation. The road passes from Āl ed-Dureib to Rabi'at et-Tahāhīn territory; it continues descending through forest by the side of Wādi Helāwiyah, which always contains water.
 12 m. Wādi el-Ushir is crossed.
 Dir. WNW.
 39 20 *Hajar Āl Ibn Mohammed*, a camping-ground for nomads.
 2 m. *Zeradan*, a camping-ground for nomads.
 12 m. *Radreiha*, a camping-ground for nomads.
 3 m. *Markh*, a camping-ground for nomads.

miles.
total stages.

End of Rabī'at et-Tahāhīn and beginning of Belā'ir territory.

- 58 19 **Sabt el-'Umr**, a fair-sized village where a market is held every Wednesday.

Wādi Helāwīyah flows into Wādi Yiba. Road crosses the latter and continues NW. over sandy cultivated plain.

3 m. *She'i el-'Umr el-Asfal*, small village.

4½ m. *Heil el-Mujā'adah*, small hill and village.

3 m. *Beit el-Nawāshirah*, 6 good wells; no village.

1½ m. **Jōz Belā'ir**, large village; see above, p. 232.

[For details of the route from this point see above,

Route No. 49, p. 232 f.]

- 87 29 **QUNFUDAH**, port; see I, p. 143 f.

ROUTE 51

MUHĀ'IL—HALI POINT

(Sikkat esh-Sherāf)

Authority: Native information.

General Direction: S. of W.

Distance: Crow-fly, 56 miles; road, 84 miles.

Character and Supplies: see p. 54 f.

miles.
total stages.

MUHĀ'IL, town; see I, p. 142 f.

Dir. at first NW. over level and well-cultivated country by the side of the wādi formed by the junction of *Wādis Tayyah* and *Ahābesh*.

1 m. *Rakiyah*, small stone-built village.

½ m. *Hajaf*, small stone-built village.

1 m. *Hali el-M'a*, small stone-built village.

1 m. *Sirr*, an abandoned Turkish post. The Āl Mūsa territory ends and that of the nomadic Āl Ikhtarsh section of the Beni Hilāl begins. Cultivation now ceases and the country is level with patches of sparse

miles.
total. stages.

forest. The road joins the *Wādi Dofa'* and continues down it.

8 m. *Mayyein*, a halting-place with a running stream and palm trees. Soon after the road turns SW.

7 m. *Jebel Mitkhadmein*, a lofty mountain, is reached.

The road descends steeply for 2 hours down the wooded declivity of '*Aqabah Mitkhadmein*.

24½ 24½ *Wajrān*, where there are palm trees and water. Road still descends in a westerly direction through forest and hills.

12 m. *Kefeirah*, plentiful water and a favourite resort of nomads.

The country now becomes level and the *Wādi Dofa'* changes its name to *Wādi Kefeirah*. Soon after the Beni Hilāl territory ends.

2 m. *Sabt es-Sawālihah*, a small village with good wells, where a market is held every Saturday. It belongs to the Beni Dhi'b, a detached offshoot of the Āl Mūsa.

The district of *Hali* is now entered, and the land of the 'Ābid el-Emīr. From here to Hali Point there is an extensive cultivation of *dukhn*, *dhura*, indigo, and cotton, and plentiful water.

2 m. *Kiyād*, village of about 250 straw huts with good water.

2 m. *Kidwah*, small village.

The territory of the Ghawānimah is now entered.

1 m. *Khe'i*, small village.

48 23½ **Radha**, village of about 300 huts. The *Wādi Kefeirah* is now left and the Aulād el-'Alaunah country entered.

2½ m. **Munjiyah**, large village of about 500 huts.

The territory of the Shawārah section of the Kinānah is now reached.

2½ m. *Kidwat el-'Ābid*, small village.

miles.
total. stages.

- $\frac{1}{2}$ m. *Beidein*, small village.
 1 m. *Ferīq*, small village.
 $4\frac{1}{2}$ m. **Makhshūsh**, large village of about 400 huts.
 66 18 Continue across country, cutting the main maritime
 road 2 miles from Makhshūsh.
 84 18 **Hali Point**; see I, p. 144.

ROUTE 52

MUHĀ'IL—BIRK

Authorities: Native information.

General Direction: SW.

Distance: Crow-fly, 51 miles; road, $56\frac{1}{2}$ miles.

Character and Supplies: see p. 54 f.

miles.
total. stages.

- MUHĀ'IL**, town; see I, p. 142 f.
 Road goes over cultivated plain.
 9 m. Āl Mūsa boundary passed and Bahr Ibn
 Sekeinah entered.
 1 m. *Jebel Harraz* to the west. Road descends
 steeply through wooded mountainous country.
 8 m. *Wādī Ra'ālah*. Wells with limited supply of
 water.
 25 $\frac{1}{2}$ 25 $\frac{1}{2}$ **Khamīs el-Bahr**, stone-built village; a large market is
 held on Thursdays. Road passes through *dhura*,
 dukhn, and *simsim* fields.
 5 m. **Jannah**, large stone-built village; continue
 through cultivation.
 2 m. *Mayādi*, small village. Cultivation ceases;
 road still descends through barren hills over
 which the Latīm nomad section wanders.
 After about 6 miles the Beni Hilāl country
 is entered.
 56 $\frac{1}{2}$ 31 **Birk**, fair-sized village, surrounded by a ruined wall;
 no cultivation except dates.

ROUTE 53

LĪTH—WĀDĪ 'AIN AND LOHEIA

Authorities: (1) Native information, compared with the Red Sea Pilot. (2) The alternative routes from Līth to Loheia and from Umm el-Khishib to Loheia are from native information obtained by Col. R. A. Wauhope, the section in the first route, from Līth to Qunfudah, being based on Turkish accounts of the Ottoman Campaign in Asir in 1911 and 1912.

General Direction: Roughly SSE.

Distance: Crow-fly, 325 miles; road, 399 or 421 miles.

Character and Supplies: see p. 54 f.

miles.

total. stages.

Līth, fishing village; see I, p. 123.

The road passes through Dhawi Hasan country.

11 m. *Jabrat el-'Ūd Hashim*, small village.

23 23 *Matla*, small village.

9 m. *Raq*, small village.

44 21 *Hamdh*, small village. Road enters Dhawi Barakāt country.

5 m. *Theyyah*, small village.

2 m. *Dōkhat esh-Shāmīyah*, large village.

5 m. *Dōkhat el-Yemenīyah*, a fertile wādi, crossed.

64 20 *Sifsafa*, small village.

3 m. *'Uruj*, small village. Road passes into Zobeid territory.

3 m. *'Ajelein*, small village in Wādi Lahsaba.

5 m. *Hawātimah*, hamlet.

79 15 *Abu Hanash*, village.

2½ m. *Qurma*, village.

2 m. *Luma*, village.

Beni Zeid country is now entered.

2 m. *Rahmān*, village.

2½ m. *Mashā'ikh*, village.

2½ m. *Sa'dah*, village.

2 m. *'Arīsh*, village.

94 15 **QUNFUDAH**, port; see I, p. 143 f.

7 m. *Nakhl Maqbūl*, wells; Wādi Mishrīf (or Mashrīf) crossed.

7 m. *Bir ed-Dibbah*: wells; Wādi Yiba crossed.

111 17 *Muhashwilah*, small village.

11 m. Road enters Beni Ya'lah territory.

miles.

total. stages.

2 m. *Arja'*, small village.6 m. *Shija'fah*, small village.

The fertile district of Hali is entered and the territory of the Kinānah tribe.

134 23 **Makhshūsh**, large village; see above, p. 236.3 m. *Wādi Keferah* crossed.11 m. Beni Hilāl boundary crossed at *Wādi Bahāsh*; water.11 m. *Wādi Nahud* crossed; no water in dry season.164 30 *Nakhl el-Birk*; date-grove and wells. Good anchorage in 5 fathoms, sheltered from all winds. Road to Muhā'il turns off l.3 m. Boundary of Munjahah begins. *Wādi Ra'alah* is crossed.7 m. *Wādi Dahban*; water and cultivation.5 m. *Wādi Dōm*; wells.2 m. *Ma Du'j*; wells.182 18 *Wasm* and *Qahmah*, village and small port.197 15 *Khasa'ah*, village.3 m. *Wahlah*, village close to *Wādi Rim*. Road to Sheibein and Ibha turns off up the wādi (see Route No. 47, p. 229 f.).9 m. *Kitf el-Masri*, hamlet.

The Munjahah boundary ends and the district of Mikhlāf el-Yemen, which stretches to Midi, is entered.

212 15 **Shuqaiq**, large village with anchorage.4 m. *Wādi et-Taff* crossed. Country inhabited by nomad tribe of Naj'u.11 m. *Wādi 'Itwid* (or *'Itwad*) crossed.233 21 **Darb**, large village of the Beni Shi'bah. Road to Ibha up *Wādi Dhil'a* branches off (see Route No. 40, p. 213 f.).15 m. *Umm el-Khishib* (or *Khashab*), village. The road here bears inland and continues to keep at some distance from the sea.252 19 *Musliyah*, village.4 m. *Khulab*, village.4 m. *Beish*, village.4 m. *Hammah*, village.

		miles.	
total.		stages.	
		2 m.	<i>Ta'shar</i> , village.
		4 m.	<i>Salāmah</i> , village.
272	20		Sabia (<i>Sabiyah</i>), town; see I, p. 143.
289	17		Abu 'Arish , town; see I, p. 143.
			Masārihah territory is entered.
311	22		<i>Samtah</i> , village.
			Beni Marwān boundary is passed.
		4 m.	<i>'Aliyah</i> , village.
336	25		Haradh , a small town.
		3 m.	<i>Baheis</i> , situated about 2 miles west of road ; wells.
		8 m.	<i>Wādi Heirān</i> , the boundary between Beni Marwān and Beni Hasan, is crossed.
		4 m.	<i>Wādi Hahl</i> , separating the Beni Hasan from the Beni 'Abs, is crossed.
		3 m.	Sūq Himāri , a large village.
361	25		Wādi 'Ain , the boundary between the Beni 'Abs and the Wa'zāt and also the southern frontier of the Idrīsi, is crossed.
			Road continues on towards LOHEIA (38 miles, see below, p. 242 f.), and HODEIDAH (see above, p. 198 f., Route No. 36).

The following is an *Alternative Route* from Līth to Loheia :

		miles.	
total.		stages.	
			Līth , fishing-village ; see I, p. 123.
			Dir. SE.
27	27		<i>Bir Bakhi'a</i> in Wādi Shāqah esh-Shāmīyah, or the north Shāqah Wādi ; 2 wells and running water in the wādi ; a good deal of cultivation of <i>dhura</i> and <i>dukhn</i> , and tamarisk jungle on the banks. The inhabitants are Dhawi Hasan.
			Continue SE., through the country of the Dhawi Hasan.
48	21		<i>'Aleib</i> , in the south Shāqah Wādi, which contains running water.
			Continue SE.
			Cross another large wādi which comes from Jebel Shadi in the Zahrān country, a fertile district where much coffee and fruit are grown.

miles.

total. stages.

- 68 20 *Mishayya*, in the wādi east of *Dōkhah*, distant about 2 hrs. from the port. Quantities of *dhura*, *dukhn*, sesame, and cotton are grown here and exported from *Dōkhah*.
Continue SE., passing Wādi el-Kharma in the Zobeid country, a running stream with much cultivation.
Wādi *Nawan* is passed, when the track turns more to the S.
- 84 16 *Wādi el-Ahsaba*, in the 'Ajelein country.
Dir. SSE.
12 m. *Umm el-Jirm*, in the Wādi Kanūnah (Kenuna), about 4 m. NE. of Qunfudah; the wādi contains running water, and there are good springs for drinking-water.
- 100 16 **QUNFUDAH**, port; see I, p. 143 f.
Dir. S.
14 m. *Makāsir*.
Cross Wādi *Yiba* (*Yeba*).
- 127 27 *Serūm*.
- 142 15 *Wādi Hali*, camp at mouth of wādi. Higher up the wādi there is cultivation, and sheep and goats should be procurable. A road leads from here up the valley to Muhā'il; see above, Route No. 51, pp. 234 ff.
- 157 15 *Rakah* (?), at mouth of Wādi Tusi.
- 172 15 *Khōr el-Birk*. The hills for the next five stages approach the coast; the district is known as the Rijāl el-M'a.
- 192 20 *Wasm* (or *Wasim*), small port.
10 m. the island of Kutambal, a short distance from the coast, is passed. *Widān*, headland and small port, are passed. The road then passes a mile or two W. of Hisn Mā'jiz (or Mājis), a hill fort to the N. of the village of Mā'jiz.
- 217 25 *Mā'jiz* (or Mājis), village on coast.
Shuqaiq, village and port. The route crosses Wādi Rim (water about 3 hrs. distant) between *Shuqaiq* and 'Itwid.
- 237 20 'Itwid (or *Itwad*) village on coast.

miles.
total stages.

Dir. SE., parallel to the coast for the first 10 m.; thence inland across desert for the rest of the stage.

262 25 *Dahna*, small village in the Wādi Beish; cultivation begins here.

Continue SE. over open level ground, cultivated in places.

9 m. *Ja'rah*, village in Wādi Nakhlein.

4 m. *Jamālah*, town.

279 17 **SABIA** (*Sabīyah*), town; see I, p. 143.

[An alternative track from 'Itwid to Sabia, passing Umm el-Khishib (see above, p. 238), is reported as follows:

'*Itwid* (see above, mile 237 of alternative route).

3 m. Cross *Wādi Darb*, and then traverse desert.

9 m. Cross *Wādi Beidh*, and continue across desert.

20 m. *Umm el-Khishib* (or *Khashab*), village, or 'small town', in Wādi Beish (32 miles from 'Itwid). [For an alternative route from Umm el-Khishib to Loheia by the coast, see below, p. 243 f.]

The route now turns SE., and runs chiefly through cultivation irrigated by flood-water from Wādi Beish and its tributaries.

6 m. *Salāmah*, village.

5 m. *Melhak* (or *Malāhah*), village.

2 m. *Shākhir*, village.

Sabia, town (see above); according to this account Sabia lies 15 m. from Umm el-Khishib, and 47 m. from 'Itwid.]

Route enters the *khabt*, or low-lying plain, which extends between the mountains and the coast.

8 m. *Wādi Dhamād*; there is much cultivation in the wādi, which belongs to the Sherifs. This part of the wādi is known as *Khudheirah Dhamād*.

miles.
total. stages.

Continue across the *khabt* till the Wādi *Jeizān* (or *Jizān*) is reached a short distance from Abu 'Arish.

- 297 18 **Abu 'Arish**, town; see I, p. 143.

Dir. nearly S. over open ground, not far from foot of hills.

10 m. *Manqa'* (or *Sūq el-Ahad*), belonging to the Masārihah tribe.

- 321 24 *Samtah*, village of the Beni Shubeili, but the principal inhabitants are Ashrāf; the old fort of Wa'lān is on a hill 5 m. to the east.

Dir. S., through the country of the Beni Marwān.

- 345 24 **Haradh**, a small town, many of the inhabitants of which are Ashrāf; the lower hills are within a short distance of the town. From Haradh there is a direct road down the wādi to Midi, now an important port (see I, p. 144), distant 18 m. west.

Continue S.

10 m. *Sūq es-Sabt*, in Wādi Heirān; wells. The route then passes through Beni Aslam country.

- 373 28 *Muteyyin*, or *Sūq 'Abs*, the principal place in the country of the Beni 'Abs; wells and cultivation.

The route passes the 'Abs villages of *Ranf* and *Marnaf*.

4 m. *Wādi el-Kôr* is crossed.

4 m. *Beit ed-Damār*, village.

1 m. *Qidf el-Butri*, the boundary between the tribes under the Idrisi and those under the Turks; a road runs from here to San'ā, 95 miles. **Wādi 'Ain** is crossed just south of *Qidf el-Butri*.

Dir. SW.

5 m. *Jarb*, a small Turkish post.

4 m. *Jaranna*, village.

3 m. *Faranti*, village.

2 m. *Deir 'Ali Hasan*, village.

4 m. *Mu'tarid*, village.

Dir. due W. for 1 m. to end of stage.

- 401 28 *Zohrah*, village about 1 m. north of Wādi Maur; there are good wells, and cultivation all along the

miles.
total. stages.

wādi. A small Turkish garrison is stationed here.

General dir. nearly W., parallel to the Wādi Maur.

1 m. *Deir Sa'id*.

2 m. *Qanumah*.

2 m. *Udābi*.

2 m. *Dahir*.

4 m. *Qumriyah* (or *Kumariyah*).

3 m. *Naseyyib* (or *Naseib*), where there are wells which supply Loheia. Here the Wādi Maur is crossed, and the route continues across the *khabt*, passing a small Turkish guard-house.

421 20 **LOHEIA** (*Lahiyah*), port; see I, p. 173.

[The following is an *Alternative Route* from Umm el-Khishib (see above, pp. 238, 241) to Loheia; it follows the coast all the way and is shorter, but much of it is heavy going through sand :

miles.
total. stages.

Umm el-Khishib (or *Khashab*), village.

Dir. due S. across the *khabt* to Kōz in the Ja'āfirah country on the Khōr el-Ja'āfirah (or Khōr Abu's-Saba), a long shallow bay sheltered by Ras Turfa and the island of Farafra (Ferafer). The track thence passes along the coast.

35 35 **Jeizān**, small port settlement; see I, p. 144.

Dir. SE. along coast, the going being fairly good for the whole stage.

12 m. *Dei'ah*, small port frequented by dhows, at the head of Khōr el-Wahlah.

Dir. S. along coast.

60 25 **Ta'shar**, fishing village.

Continue S. along coast, the going being fairly good for the whole stage to Mīdi.

80 20 **Mīdi**, village and port; see I, p. 144.

Continue S., crossing the Wādi Heirān.

92 12 **Habl**, small village, about 3 m. inland.

Dir. S. across the *khabt*, sandy in places.

miles.
total. stages.

- 17 m. *Bukeis*, no village, but a well near the shrine of 'Abdul-Ghafār. The route there crosses *sabkhah* (salt ground) till near the Wādi Maur.
- 14 m. *Naseib* (*Naseyyib*), wells (see above, p. 243).
- 129 37 **LOHEIA** (or *Lahiyah*), port; see I, p. 173.

ROUTE 54

TANŪMAH—BARAK

Authority: Native information.

General Direction: NW.

Distance: Crow-fly, 47 miles; road, 55 miles.

Character and Supplies: see p. 54 f.

miles.
total. stages.

- Tanūmah**, large village; see above, p. 222.
- Dir. NW. over cultivated plateau for 9 miles, through Beni Shihir territory, and then down the long and steep pass of 'Aqabah Sajein.
- 22 22 *Ma el-'Adawāt*; spring.
- 4 m. *Nikhl*, water and date grove. Level country reached.
- 7 m. *Marwa*, small village.
- 2 m. *Mandar*, small village.
- Road crosses into Āl Mūsa ibn 'Alī territory and *Barak* district, and runs by the side of *Wādi Baqr* through cultivation.
- 43 21 **Jureihah**, large village. Wādi Baqr flows W.
- 4 m. *Ma'āsh*, small village.
- Road enters Āl Isba'i territory.
- 3 m. *Sahil*, large village of about 250 stone houses.
- Road crosses Humeidah boundary.
- 55 12 **Sūq el-A'jamah**, large village in the district of Barak (see I, p. 416), where an important market is held and supplies may be obtained; see above, Route No. 49, p. 231.

ROUTE 55

HODEIDAH—SAN'Ā

Authorities: Bury, 1914, in the main; Wavell, 1911; Harris, 1892; Manzoni, 1877-80; compared with a description of the route given by the Intelligence Department, Cairo, 1913. These authorities all give various and conflicting estimates of the distances between stages: Bury's have been preferred. Altitudes from Lieut.-Col. Maunsell's map.

General Direction: NE. for about 40 miles, ESE. for 30 miles, then NE. for the rest of the way.

Distance: Crow-fly, 91 miles; road, 173 miles.

Character and Supplies: see p. 55.

miles.
total. stages.

HODEIDAH, town; see I, p. 171 f.

Dir. NNE. for 2 m., then NE.; broad but sandy road wide enough for 4 abreast, across *Tihāmah* plain; good going for horses and camels, bad for infantry and mules.

5 m. *Zawiyah*, wells; a gentle rise through occasional belts of mimosa bush.

15 15 **Tannan**, rest station and much used halting-place; large well, but water brackish.

Dir. NE. over level ground; going fairly hard and stony, with sandy patches, for about 10 m.; gentle ascent all the way.

1 m. Turkish armed post.

10 m. *Dār Ahmed*. Wells; water, on from this point, no longer brackish.

3 m. Enter broad flat valley, 1 to 2 m. wide, with steep rocky hills on either side; 2 or 3 miles of stony track.

32 17 **Bājil**, town of about 3,000 inhab., at limit of desert; stone-built houses; Turkish fort. Alt. 760 ft. (Bury, 600 ft.); rich agricultural district.

Dir. NNE., across broad arable plain; then winding up a gradual stony ascent.

5 m. *Malawa*, deserted *caracol* (guard-house) to l.

Dir. ESE. through foothills.

5 m. *Buhāh* (Beha), village of mud-huts; pop. about 500; alt. 1,250 ft.; best water in district,

miles.
total stages.

main supply from Bir Zuleil in middle of village. Good going now, but ascending; 3 m. on, old shrine 1,000 yds. left. Road bears E.; 7 m. on, it reaches broad level plateau, good surface; 3 m. on, it drops into ravine, 250 ft. deep with similar rise on other side. (War Office Handbook says :—‘It would probably be necessary to take horses out, and hand guns down this.’) Near *Shabah* road approaches within 1 m. of *Wādi Sihām* (*Sahām*), along which is an alternative route to San‘ā for camels, to avoid difficult gradients of Menākhah. 3 m. on, another ravine is crossed with drop of 100 ft.

- 59 27 ‘*Uḇāl*, village of stone-built houses, on hill commanding last ravine; alt. 1,640 ft.; plenty of good water Dir. NE., traversing densely wooded *Hajjan* ravine, where road is liable to ‘washouts’ during thunderstorms; at 2 m. it emerges upon well-cultivated tract of open country, dotted with park-like timber; 7 m. on, it ascends low stony plateau, fair going.

- 69 10 **Hajeilah**, town on spur overlooking Hajjan ravine; pop. 1,500; alt. 2,300 ft. (Bury, 2,000 ft.); water abundant, but said to be constipating; climate reputed to be unhealthy.

Dir. N., across *Hajeilah Plateau*; at 1 m. Hajjan ravine again entered; ascending boulder-strewn track, quite impossible for wheeled traffic; 5 m. on, ravine suddenly narrows and track passes through short natural tunnel formed by huge fallen boulder—known as ‘the gate of the mountains’; 3 m. on, track leaves Hajjan ravine and ascends mountain by well-paved zigzags.

- 11 m. *Wasil* (Wassal), village of stone-built houses, perched on edge of precipice; 1,000 ft. above Hajeilah; caravanserai and huts for travellers; good water.

The coffee-growing Highlands are now entered; all the towns and villages onwards are built of stone and are more or less of fortress-like character.

miles.
total. stages.

Road now ascends, dips, winds round spurs, then ascends again, in well-buttressed zigzags, but with bad surface ; dominated by *Mazar Fort* above, on l.

6 m. *Atarah* crest, track continuing up a valley ; 3 m. on, crosses brook, then rises rapidly in steep zigzags over very bad surface ; at about 6 m. *Hajrah Plateau* is reached. Thence a fairly well-made road rising gently. Castelled village of *Hajrah*, perched on high rock, 600 yds. to l., commands road.

13 m. *Hajrah Pass*, summit reached ; alt. 6,000 ft. Dir. SE., by steep descent of about 500 ft. ; then road turns E., and is broad and good into *Menākhah*, which first comes into view at about 3,000 yds., across valley, its forts commanding this part of road. About $\frac{1}{2}$ m. before town, white-domed spring, with drinking water, to l.

101 32 **MENĀKHAH**, town ; see I, p. 167.

From this point to Sūq el-Khamīs is the most insecure part of the road.

Dir. NE., very winding course, good for 1 m. ; then track zigzags down 2,500 ft. into the *Hajar* ravine, which is reached after a further 7 m. ; well-traced and buttressed, but neglected, and there are frequent 'washouts' ; necessary to dismount in places.

Road now turns E., crosses two ravines, and continues over a succession of difficult stony ascents and descents.

10 m. *Beit el-Mahdi*, Ottoman post on small eminence, 800 yds. to r.

2 m. *Idz*, walled hamlet (alt. 5,360 ft.) close on r., and stronghold on high mound to l. Still more hilly country is now entered. At 2 m. *Beit er-Rabh* to r. ; 3 m. on, road passes for half a mile through densely-bushed gorge, between high precipitous rock walls not more than 50 ft. apart ; ideal cover for ambush. Here, camel-track up Wādi Sihām comes in r. (see above, p. 246).

miles.
total. stages!

Dir. NE., by long ascent out of gorge, and then descent.

8 m. **Mefhaq**, village l. of road ; important fortress (alt. 5,700 ft.) on mound to r., commanding road ; 2 wells below village.

Dir. NNE., in ever-increasing gradients round craggy spurs ; very rough surface in most parts. At about 6 m. road circles rock pinnacle, 150 ft. high, with observation-post on crest. Ascent becomes steeper still and involves a strenuous climb on to ridge between two deep valleys ; along this, ascent somewhat easier into **Sūq el-Khamis**. Two miles before village, a small hamlet and mosque are passed.

135 34 **Sūq el-Khamis**, walled village of stone houses ; garrisoned, and forming a strong strategic point ; pop. about 300 ; alt. 7,760 ft. (Bury gives 7,200 ft.). Military hospital, adjoining stores and quarters for company of soldiers ; water excellent from wells.

Dir. NNE., still ascending in a succession of zigzags, up main scarp of *Jebel Minar*.

2 m. Turkish post and tower to l.

7 m. **Salami Pass**, highest point of Hodeidah-San'ā road ; alt. 9,400 ft.

Minar Caracol, a stronghold perched on *Jebel Minar* and commanding the pass ; *Beit es-Salami*, an Arab tower, overlooks it from a height on l.

Road, still winding, now drops to Bo'ān with bad surface throughout.

148 13 **Bo'ān** (Bau'ān), small village with market ; alt. 8,900 ft.

Road from this point into San'ā is good on the whole, and motors could pass ; here and there are small rough and rather steep descents, but between these the ground is level.

2½ m. White-domed watering-place for men and animals.

2 m. *Yazil*, village to l., a little above road.

2 m. *Mutnah*, village to l., on high knoll some little distance off. To r., elevated post of *Sinam* (*Thinam*) *Pasha* (alt. 9,180 ft.), usually held

miles.
total. stages.

by strong detachment of troops ; here is a large tank, recently built, to collect surface water, but water bad ; good water from well nearer road.

Dir. E. by N., along straight track across *Mutnah Plateau*, for 4 or 5 m. ; then a descent by well-buttressed zigzags ; and a short stretch along the level.

7 m. *Musājīd*, small village on ridge at a little distance. Road now climbs spur of *Jebel Aswad*, strewn with black boulders ; then descends about 1,000 ft. in easy gradients and over good surface to plain ; then, bearing almost due east, it runs for about 3 m. along the level, and enters San'ā by the *Bāb el-Yahūd* (Gate of the Jews).

173 25 **SAN'Ā**, town ; see I, pp. 165 ff.

ROUTE 56

MOCHA—TA'IZZ

Authorities : Niebuhr, 1763 ; Manzoni, 1877-80. Approximate altitudes from Lt.-Col. Maunsell's maps.

General Direction : At first E., then NE., then E. again.

Distance : Crow-fly, 53 miles ; road, 66 miles.

Character and Supplies : see p. 55.

miles.
total. stages.

MOCHA, town ; see I, p. 172 f.

Dir. E. across barren Tihāmah.

3 m. *Būleil*, inn ; there is also an inn at each of the three following hamlets.

5 m. *Dābūlih*.

3 m. *Basiyah*.

4 m. *Fātrāh*. 4 m. to Mūsa.

19 19 *Mūsa*, small village of poor houses with an inn and small fort, situated at the confines of the Highlands ; water good.

miles.

total. stages.

Dir. NNE. ; then ENE. passing up broad valley, waterless except after heavy rain.

5 m. *Maraba'*, village on N. side of valley, which ends here.

[Manzoni followed a slightly northerly track from *Fātrāh*, through *Dubānah* to *Maraba'*.]

Dir. NE., winding ascent.

2½ m. *Meijan* (alt. 650 ft.), inn.

Dir. NE., by track generally ascending across bleak plain.

½ m. *Sablāh*, village.

4 m. *'Urasaj*, small village in wādi of same name, with fair every Sunday; at foot of Dhuhah Pass.

3 m. *Dhuhah* (Neqil Dhuhah) (alt. 1,300 ft.). Fairly easy descent to level stretch of desolate plain, through *Wādi Jinam*; then ascent by bad road over *Jinam Pass* (alt. 1,470 ft.). Descent into *Wādi el-Barq*, which is well cultivated.

3 m. *Barq*, a group of some dozen houses, with weekly market (Sūq el-Barq) near by. More fertile country now entered.

Dir. NNE., leaving *Wādi el-Barq*.

41 22 **Mansuriyah**. Market village; large inn.

Dir. S. of E., then NE.

3 m. *Meisār*.

Dir. E. Ascent, by very tortuous route, of *Rahabah Pass* (alt. 2,160 ft.), and descent to *Wādi Rahabah*, which is crossed.

1½ m. *Rahabah*, small village.

1 m. *Habb*. Route crosses two small passes and some shallow wādis; cultivation and fruit trees.

1½ m. *Dureibah*, village, on hill at a little distance; the head-quarters of the Beni Aqlān, with castellated fortress. Small bazaar (Sūq Dureibah) near road. Water reputed very bad.

Dir. NE., track ascending round foot of mountain, and passing 2 cisterns (*majils*) and 2 wells.

1 m. *Kuseidiyah* (Hoseida), small inn.

miles.
total. stages.

Dir. E., in which general direction road continues to Ta'izz.

3 m. *Salāmah*, alt. 3,280 ft., village with market ; 2 water tanks and 2 wells. Three other tanks are passed further on, before Ta'izz is reached. Hodeidah—Ta'izz road joins in N.

3 m. *Ramadah*, near wādi of same name ; village of about 30 huts. Considerable cultivation, including maize, and gardens of oranges, lemons, and bananas. An extremely winding ascent most of the way.

1 m. *Rubah*, rather large village with market. Citadel (*Kahrah*) of Ta'izz comes into view.

2 m. *Karrah*, village.

5 m. *Rahassan*, hamlet and small inn. A mile on, road enters *Wādi er-Rih*, follows it for some little distance, and then comes out upon open ground ; thence fine wide road cut on slopes of *Jebel Sabor*. 3 m., good going, to Ta'izz.

66 25 **TA'IZZ**, town (alt. 4,600 ft.) ; see I, p. 168 f.

[Niebuhr gives the stages of this route as follows :—
To Mūsa, 21 m. ; Mansuriyah, 45½ m. ; Ta'izz, 71 m.]

ROUTE 57

HODEIDAH—BEIT EL-FAQĪH—ZEBĪD—MOCHA

Authorities : Niebuhr, 1762, whose distances are given ; compared with Indian Govt. Road Book.

General Direction : SE. to Beit el-Faqīh ; thence generally S. a little by W. to Mocha.

Distance : Crow-fly, 110 miles ; road, 122 miles.

Character and Supplies : see p. 55 f.

miles.
total. stages.

HODEIDAH, town ; see I, p. 170 f.

Dir. ESE., at first through palm-groves, then over gently rising sandy plain (the Tihāmah). The places passed, with but one or two exceptions,

miles.
total. stages.

are merely collections of huts, with perhaps a small inn.

3 m. *Muskuriyah*.

1½ m. *Iswiyah*.

2½ m. *Mandhar*, small village; fairly good wells.

2 m. *Uskhillah*, good water, some of which is supplied to Hodeidah, where (according to Niebuhr) water is bad.

Wadi Sihām crossed.

3 m. *Makhdaji*. Some 3 or 4 miles on, *Wādi Eshilah* crossed.

4 m. *Khabeir*.

1 m. *Massiyah*, village.

3 m. *Lāwiyah*; *Wādi Abbāsi* crossed; small village of 'Abbāsi not far to S. of road.

1 m. *Garri*.

1 m. *Qama*, village.

3 m. *Makhfūr*, small hamlet.

3 m. *Shabbiyah* (Shebbe).

33 33 **BETT EL-FAQIH**, town; see I, p. 174.

[Road goes off SE. for Jiblah and Ta'izz. Another, W. by S., for *Ghuleifqah*, a shallow khōr in Red Sea, with extensive anchorage for small craft in from 3 to 4 fathoms.]

Dir. SSW., still through the barren sandy Tihāmah, leaving telegraph line somewhat to E.

1½ m. *Jannah*.

2½ m. *Ausam*. Some little distance on, *Wādi Ghama* is crossed.

2 m. *Wādi Kuwai* is crossed; water only after rain.

1 m. *Mesatiyah*.

2 m. *Dimnah*, small village. [Road goes off SSW. to Murrah and Tahita.]

Dir. S., passing two wells.

4 m. *Mahallah* (Mohall), village.

Three isolated wells passed in this section.

2 m. *Mehat* (Mahad), large village, situated in broad and fertile *Wādi Mehat*, where there is considerable cultivation of indigo. Cross this wādi, and *Wādi Bedu* a mile or so on.

miles.
total. stages.

2 m. *Jarbah*; 7 m. to end of stage.

57 24 **ZEBID**, town; see I, p. 174.

[Road goes off S.E. to Hais and Ta'izz; another due W. to Tahita and the coast.]

[An alternative route, from Beit el-Faqih to Zebid, which seems to follow the telegraph line, runs as follows:

BETT EL-FAQIH.

4 m. *Jabi*, hamlet.

3 m. Road crosses Wādi Kuwai'.

4 m. *Mehat*, large village in wādi of same name.

7 m. **Huseiniyah**. According to Bury, the paramount chief of the Zaranik tribe has his head-quarters here.

ZEBID, 27 m.]

Dir. S. by E., leaving the telegraph line and crossing Wādi Zebid. From this point to end of route the villages and settlements are few and far between; the whole country is arid and very sandy, dotted here and there with scrub, and covered in places with coarse grass; the latter is much used as roofing for huts in all the Tihāmah region.

2 m. *Türku* in Wādi *Jeresah*, a fertile section of Wādi Zebid.

5 m. *Gabahrah*. The fertile inland delta, watered by the Zebid river and its branches, ends here.

8 m. *Sherjah*, village.

[Road goes off ESE. for Hais.]

Dir. SSW., passing a number of small hamlets, with perhaps an inn.

3 m. *Jurbān*.

4 m. *Nahāri*, tomb of Sheikh, much visited as shrine.

5 m. *Muheyyan*.

3 m. *Jubeili*.

93 36 **Mūshid**, large village a few hundred feet from the sea. D'Anville considers this place to be the ancient Mūsa.

Dir. S. slightly by E., along the coast.

2 m. *Durbu*, small inn; some distance on, *Memlah*, where are (or were) artificial salt-pans. In

miles.
total. stages.

Niebuhr's time salt was largely supplied to the interior from here. The road now skirts the *Bight of Fajrah*.

4 m. *Jurden*. Telegraph line now runs by the track for rest of way to Mocha.

3 m. *Semahlah*, small inn.

1 m. *Sahāri*, small village.

4 m. *Ruweis*, large village and fishing town.

From this point alternative tracks lead into Mocha, one following the shore, the other a little inland; the former is the more sandy and heavy of the two.

5 m. *Yakhtūl*, village and small port, with a prominent mosque, forming a good landmark seaward as well as landward.

122 29 **MOCHA**, town; see I, p. 172 f.

ROUTE 58

SAN'Ā—RIYĀDH

Authorities: Halévy, 1870, for the stages from San'ā to Makhlāf; native information for the other stages and for the route in general. On the stages from Makhlāf to Riyādh, the distances and relative positions of places are very uncertain.

General Direction: N. by E.

Distance: Crow-fly, 660 miles; road, 821 miles.

Character and Supplies: see p. 56.

miles.
total. stages.

SAN'Ā, town; see I, pp. 165 ff.

Road, just practicable for carriages as far as Raudhah, leaves N. by Sha'ūb Gate. Rugged descent and then through mountainous district.

3 m. *Jiraf*, village.

2 m. **Raudhah**, town; see I, p. 170 f.

Dir. NE. over level well-cultivated plain, passing several hamlets with towers and forts. After about 3 hrs. *Zubeirah*, hamlet falling into decay. Route then goes through almost continuous forest

miles.
total. stages.

of tamarinds, in a plain. After about $2\frac{1}{2}$ hrs. small village of *Jebel*; then $1\frac{1}{2}$ hrs. over rough road to *Shirā'*.

18 m. **Shirā'**, small town of several separate hamlets, chief settlement of Ahrab tribes, on border of large plain of Beled Hārith. Lime-kilns; much honey in district.

Dir. E. by S., through region of arid mountains; after 4 hrs. of rough going, a wide valley with numerous water-courses is entered.

30 30 **Madid**, pop. 3,000; open town of comparatively modern aspect, situated on both banks of Wādi Madid, chief settlement in district of the Nehm people. Many notables of district have castellated houses.

Dir. NE., through Nehm country, with no sedentary population; the track is less safe, and over difficult stony ground, for about half a day's march.

13 m. *Milh*, small town near Wādi Silāh; rallying-point for nomads, with their flocks and herds, at certain times of year.

Dir. NNE., entering broad stony plain, with sparse herbage in river-beds near route; the plain is surrounded by arid mountains.

7 m. *Berān*, Bedouin village of mud huts and several tents; ruins in neighbourhood. Wells, with fertile patches here and there, in ravines; centre for watering flocks.

Dir. NNE., through arid country; continual and fatiguing ascent towards plateau of Jauf.

15 m. *Qanbarah*.

Dir. NNE.

7 m. *Qutbin*.

Dir. almost due N. A day's fatiguing march leads to the culminating point of the lower Jauf, from which there is an abrupt descent through a narrow defile, known as *Ferda*. Thence, descent less steep to valley which forms the entry to the Jauf; numerous burial-huts, constructed of schist, peculiar to this region, are passed.

28 m. *Majzar*, about 100 houses in groups, belonging to Nehm people; ruins in neighbourhood;

miles.

total. stages.

considerable flocks and herds; large quantities of butter produced.

Dir. slightly N. of E.; after about 2 hrs. route leaves mountains and enters flat plain that becomes increasingly sandy.

- 110 80 **Ghail**, in Wādi Saba; principal fixed settlement of the lower Jauf; see I, p. 175 f.

Dir. slightly W. of N.

16 m. Cross *Khārid River*, 'here of respectable width'; innumerable ruins in neighbourhood. Beyond river, vegetation gradually disappears and country becomes more and more hilly.

8 m. *Zāher*, village.

Dir. roughly N.

24 m. *Hajil*; continue in northerly direction.

- 165 55 **Rajj**; road from Sa'dah comes in due W.

Dir. N.

41 m. *Sadr*.

Dir. NE. by N.

24 m. *Wāsil* (Wasith). Road from Sa'dah comes in l.

Dir. N. by E. After a mile or so track crosses a valley, enters the broader Wādi Nejrān, and crosses the wide river-bed.

- 247 82 **Makhlāt** (or **Mikhlāt**), village in Wādi Nejrān; see I, p. 178.

Dir. NE., over northern side of Wādi Nejrān; route then passes into *Wādi Habūnah*, which it descends. Water now probably very scarce.

35 m. *Qulbān el-Jarr*.

Dir. NNE.

14 m. *Qulbān ed-Dahām*.

Dir. at first NE., then bearing round to NW. down Wādi Habūnah.

- 408 161 **Jalib et-Takh**.

Dir. slightly E. of N., across barren desert.

- 652 244 **Tamrah**, village of about 150 houses; wells, good water at 27 ft.; some cultivation and live stock, but no horses.

[The Alternative Route from San'ā to Tamrah by way of Sa'dah and Ibal, which is given below (see Route No. 59, pp. 259 ff.), comes in l.]

miles.
total stages.

Dir. NNE.

52 m. *Salāmīyah Pass*, over Jebel Birk.

Dir. NE.

729 77 **Hilwah**, town ; see I, p. 361.

Dir. N. by W.

738 9 **Hautah**, town ; see I, p. 361. Route from Hasa (Hofūf) joins in r.

Dir. slightly N. of E., curving round a spur of *Jebel Hileyyah*.

748 10 **Harīq**, town ; see I, p. 361.

Dir. E. at first, following for a short distance a track to Dilam. The route then bears NNE. and skirts the eastern slope of *Jebel 'Alīyah*.

20 m. *Ausat*, small village.

Cross *Wādi Dhrumah*.

796 48 **Hā'ir**, village, situated just above junction of Wādis Hanifah and Dhrumah ; 200 houses ; about 10,000 date-trees. Fairly abundant water at 12–18 ft. ; some cereals, lucerne, and vegetables, and a few fruit-trees, but cultivation, in general, poor.

Dir. NNW. down Wādi Hanifah.

12 m. *Mesāni'*, village to l., 100 houses ; water near surface ; ordinary fruit-trees and cereals ; about 10,000 date-palms, joining those of Manfūhah, 3 m. distant.

811 15 **Manfūhah**, town ; see I, p. 360.

814 3 **RIYĀDH**, town ; see I, p. 357 f.

[The following is an *Alternative track* from Tamrah (m. 652 of main route) to Riyādh :

652 652 **Tamrah**, village ; see above, p. 256.

Dir. NNE. following the main track as far as

52 m. *Salāmīyah Pass*, over Jebel Birk.

Dir. NW.

685 33 **Badi'**, village ; see I, p. 363.

Dir. N. by E.

695 10 **Raudhah**, village ; see I, p. 363.

Dir. NNW.

703 8 **Kharfah**, village ; see I, p. 363. About 6 m. E. is Seih, a populous group of villages.

miles.
total. stages.

Dir. N., slightly by E.
724 21 **Leilah**, village ; see I, p. 363.

Dir. ENE.

13 m. *Dhrumah*, village in Wādi Dhrumah.

23 m. *Malqa*, village. Track now follows the
Hā'il-Riyādh Route for 18 m. ; see p. 117.

778 54 **RIYĀDH.**]

[The following is an *Alternative Route* from Ghail to Makhlāf (see above, p. 256), followed by Halévy in 1870 :

miles.
total. stages.

Ghail ; see above, p. 256 (m. 110 of main route).

Dir. E. and then NE. Three hours' march, crossing
Khārid River at 8 m.

10 10 **Hazm**, chief town of Middle Jauf ; about 120 houses of sun-dried brick, some several stories high. Abundance of water for cultivation, if better utilized. Actual amount of cultivation small, inhabitants relying solely on rains ; but in years of good rain a fair amount of produce is obtained. Cultivation was originally more extensive, as there were canals leading from the Khārid ; these have fallen into ruin.

Dir. N. by E., ascending increasingly, over back of
Jebel Laud.

25 15 *Jebel Laud*, summit of ascent. Thence a zigzag descent, a further ascent over higher *Jebel Qadm*, then another zigzag descent over rough ground and through defiles, and then on through hilly country.

4 m. *Melāhah*, a few houses of brick and a tower.

Dir. NNW. At first the track is rather difficult, across mountainous uninhabited country ; then it runs through more verdant country watered by several water-courses.

44 19 *Miqara* (or *Maq'ar*), picturesquely situated on edge of the extensive oasis of Khāb. All round, carefully cultivated terraced fields, bordering the foot-hills ; water from numerous well-kept wells ; a good many trees ; crops of wheat of superior quality, vegetables, but few fruit-trees.

miles.
total. stages.

Dir. WNW.

Oasis of *Khāb* crossed. Closely dotted with villages and hamlets ; houses mostly of sun-dried brick, but also several of stone, the latter belonging to Sherifs. Three hours to end of stage.

- 53 9 **Mahjil**, chief town of oasis ; market twice weekly ; several well-built houses of comparatively wealthy people.

Dir. N. by W. to Wādi Nejrān ; 4 days' march. Route first follows the zigzags of narrow rocky valleys ; the hills gradually become lower, and the track emerges upon 'an immeasurable, yellow, sandy plain, frightful and arid', and practically waterless. Track often lost in sand ; march slow and painful till a narrow valley leads into *Wādi Nejrān*.

- 145 92 **Hadhra**, small modern village with a modern tower and inexhaustible wells, at mouth of Wādi Nejrān ; width of wādi about 300 yds. ; trees and verdure as far as eye can reach ; thick groves of palms of great height, and cultivated fields everywhere along wādi bed.

- 155 10 **Makhlāf**, village ; see above, p. 256 (m. 247 of main route).

ROUTE 59

ALTERNATIVE ROUTE FROM SAN'Ā TO TAMRAH

Authorities : Glaser, 1884, from San'ā to Khamir, though he gives but few topographical details. Native information.

General Direction : N. to Bishah ; then NE. to Tamrah.

Distance : Crow-fly, 450 miles ; road, 608 miles.

Character and Supplies : see p. 56 f.

miles.
total. stages.

San'ā, town ; see I, pp. 165 ff.

Dir. W. of N., leaving by Sha'ūb Gate, following Route No. 58 for 5 m.

5 m. **Raudhah**, town ; see I, p. 170 f. Glaser speaks of a *ghail* or stream, at which he watered his camels.

miles.

total. stages.

Dir. N.

2 m. Cross wide wādi (probably one of the upper reaches of the Khārid River). Several other water-courses crossed before Medīnatein.

1 m. *Beni Hawat*, village, about 1 m. E. of road.

9 m. *Hizam*, village.

7 m. *Medīnatein*, village, with ruins, to E.

Dir. NNW.

28 28 *Na'at* (Naqt), large village, situated about 1½ m. E. of track.

5 m. *Reidhah*, village. A road from 'Amrān joins in l. The track traverses Hāshid country as far as *Khawwān*.

5 m. *Ghūlah*, village. The route crosses a plateau.

52 24 **KHAMIR** (Khamr), town; see I, p. 170.

[Road from 'Amrān joins in l.]

Dir. N. by E., now approaching lower plain country.

16 m. *Hūth*.

Dir. NW.

79 27 *Khawwān*.

Dir. N.

8 m. *Dhalab*. Dir. N. by E.

97 18 *'Ashimīyah*. Dir. NNW. across plateau.

15 m. *'Abdein*, hamlet. A road comes in E. from Rajj.

Dir. W. by N.

115 18 **SA'DAH**, town; see I, p. 171.

Track comes in NE. from Makhlāf.

Dir. NNW., across undulating plateau.

16 m. *Dhukyān*.

Dir. N. across undulating plateau.

17 m. *Raghāfah*.

Dir. NE. across undulating plateau.

10 m. *Karādh*. Continue NE. Track winds down from plateau.

166 51 **Dhahrān**, the chief village of the Wadā'ah; see above, p. 218.

Dir. NNW., across water-course, and then ascend.

15 m. *Hawdh Ibn Ziyād*.

Dir. NNW., still ascending to head of watershed, then descending.

ROUTE 59 : ALTERNATIVE FROM SAN'Ā TO TAMRAH 261

miles.

total. stages.

- 21 m. Upper reaches of Wādi Nejrān crossed.
- 206 40 *Waqashah*, in Wādi Nejrān.
Dir. W. of N., a long stretch across undulating plain.
- 240 34 *Darb el-'Uqeidah*.
Dir. slightly E. of N., across undulating plain.
13 m. *Dahbān*.
Dir. E. of N., continuing across plain.
18 m. *Ibn Esh-Shā'ir*.
Dir. NW. by N., across undulating plain. 14 m. to Ibal.
- 285 45 *Ibal*, settlement.
[From Ibal the Hajj Road continues to Mecca (cp. Routes Nos. 44 and 38). According to the Indian Govt. Road Book Ibal is 26 m. distant from Matfa (= Madfa'), which lies on Route No. 44 (Ibha-Tā'if); the track is said to run over high and rough country W. to Ibñ Ma'an (12 m.); then NW. to Madfa', crossing after 3 m. Wādi Shahrān. For the track between Tā'if and Mecca, see Route No. 38.]
Dir. NE., over undulating country.
5 m. Cross Wādi Sibrān.
32 m. *Dabābah*.
Dir. N. by W., winding over low hills and crossing several water-courses.
- 345 60 *Hiffar*. Usual halting-place about 3 m. E. of village.
Dir. N., over undulating ground. A little distance short of Bishah, wādi of same name is crossed twice.
- 373 28 **Bishah**, settlement; see I, p. 142.
Dir. ENE., down Wādi Bishah.
20 m. *Janeinah*.
Dir. NE., the track continuing down Wādi Bishah, at first winding and then straight.
- 626 253 **Dām**, town; see I, p. 365.
Dir. E. by N.
17 m. *Nazwah*, village. Near it is *Ruweisah*, a village with about 70 houses and small date-plantation.
Dir. E. by N., into the sandy tract known as the 'Saleyyil'.

miles.
total. stages.

13 m. *Rākah*, with cluster of *rak* trees, but no water. Village of *Kamidah*, of about 50 houses, lies about 3 m. to SE.; there is brackish water here at 18 ft., and considerable wheat and lucerne cultivation.

Dir. slightly N. of E., across plain towards northern spur of Jebel Tamrah.

691 65 **Tamrah**, village; see above, Route No. 58, p. 256.

ROUTE 60

ADEN—SHEIKH SA'ID—MOCHA

Authorities: Military Report on Aden Protectorate, and information from Arab tribes in neighbourhood of Aden. Red Sea and Gulf of Aden Pilot. Admiralty Chart of Red Sea (Sheet 5).

General Direction: W. to Sheikh Sa'id; then N. by W. to Mocha.

Distance: Crow-fly, 130 miles; road, 165 miles.

Character and Supplies: see p. 57.

miles.
total. stages.

ADEN, town; see I, p. 203 f.

Dir. N., along a made road, broad and with good surface, to Sheikh 'Othmān.

2 m. *Khōr Maksar*, Aden troop lines. [Road leaves N. by E. along coast to Shūghrah; see Route No. 65, pp. 285 ff.]

4 m. **Sheikh 'Othmān**, town; see I, p. 204 f.

Dir. W., over hard sand, across open desert.

4½ m. Cross wide shallow bed of *Wādī Kebīr*.

11½ 11½ **Bir Ahmed**, populous village, on r. bank of *Zeida River*, with extensive palm-grove one mile to E.; eight or nine wells, but water brackish, though plentiful all the year round; two best wells amongst cultivation about 400 yds. E. of village; good camping-ground.

Dir. W., over rather heavy sand, with short stretches of hard track; a number of tracks diverge in various directions, in this stage; keep going W.

miles.
total. stages.

- 3½ m. *Bir Fadl*, well, over 50 ft. deep, water all the year round ; good camping-ground.
- Dir. W. by S., over sandy ground covered with coarse grass ; a number of large spreading acacia trees here and there.
- 8 m. *Bir Dureimiyah*, well 50 ft. deep, with 10 ft. brackish water, sufficient to water 300 camels a day.
- Dir. almost due W., over a stretch of several miles of sand with coarse grass.
- 31½ 20 *Bir Am Makhnūq*, well 60 ft. deep, with 11 ft. brackish water ; surrounded by jungle ; no village, but numerous nomads in vicinity.
- Dir. WSW., for 5 miles, over sandy ground with acacia jungle ; then open sandy ground, soft in places.
- 16 m. *Wādi Dār* crossed.
- 2 m. *Hiswah Qa'o*, small spring of fresh water.
- 2 m. *Jebel Am Birkah*, a double-peaked hill, lying away to S. ; then *Jebel Sunamma* is passed to l., about 4 miles from *Dār Mujahhar*.
- 56 24½ *Dār Mujahhar*, small mud tower on l. bank of *Wādi Am Shahar* ; a few patches of cultivation ; no permanent inhabitants. One well (*Bir Subahī*), 150 ft. deep, brackish water, difficult to draw owing to great depth. There is a spring of fresh water at *Hiswat Am Kheidar*, at mouth of wādi, 4 miles S.
- [An alternative route from *Bir Am Makhnūq* to *Dār Mujahhar*—26½ m. in length—runs by way of the coast and *Jebel Marsa*, where there is a good camping-ground ; but the track is more difficult.]
- Road crosses *Wādi Am Shahar*.
- Dir. WSW. across firm gravelly soil.
- 10 m. Road now approaches seashore and skirts *Khōr 'Umeirah*, a shallow lagoon (4 m. by 2 m.), cut off from sea by narrow sand spit with opening at western end.
- 2 m. *Dār 'Umeir*, small mud building, owned by Sultan of Lahej ; well 37 ft. deep, 8 ft. brackish water, sufficient for about 200 camels.

miles.

total. stages.

Dir. W. over sandy ground, the track again leaving the shore.

7½ m. *Bir Am Jatari*, in *Wādi Timnan*.

4 m. *Bir Mahijja*, well ; water suitable for camels only.

A road goes off N., to Am Fajarah.

82 26 *Bir Ras 'Arah*, a well half a mile inland, the track having again approached the coast. There would be no difficulty in landing supplies of drinking-water for troops here ; moderate supplies of forage could also be obtained from Turan and district, 12 miles NE. (A road goes off N. to Karaba.)

Dir. N. of W., following the coast for more than 20 miles, from which the track is never more than three-quarters of a mile distant ; it runs over good hard ground.

3 m. *Bir Hujeimah*, shallow spring, brackish water.

3 m. *Bir Naza*, small supply of brackish water.

5 m. *Hiswat el-Hajaf*, small supply of brackish water, about enough to water 50 camels.

4½ m. *Hiswat el-Jiraza*, brackish water, small supply.

3 m. *Bir 'Uzāf*, shallow well, 4 ft. deep ; good fresh water.

4 m. *Bir Suqayyah*, deep well ; fair supply of slightly brackish water.

Dir. SW., gradually leaving coast.

7 m. *Turbah* (Tūrbākh), near Ras Turbah ; hamlet of some 30 mat-huts. *Bir Hali* near, with scanty supply of brackish water.

1 m. *Hisn Murād*, Turkish fort on eastern side of Sheikh Sa'id promontory, marking point at which Turkish frontier meets the sea. Scanty supply of brackish water ; garrison greatly dependent on natives bringing water for sale from Suqayyah.

115 33 *Sheikh Sa'id*, telegraph station ; see I, p. 174f.

Dir. ENE. from Turkish Telegraph Office.

1 m. *Jebel Barikah* is passed.

1½ m. *Khōr Ghureirah*. Route rounds the head of this gulf and turns N. by W.

3½ m. *Khōr Shūra*.

miles.
total. stages.

Dir. N. at first, as far as a small creek ; then N. by W. along the coastal edge of the Tihāmah plain ; very sandy going for some miles.

137 22 *Dubāb*, a few huts ; water very scarce ; a well at *Bir Masriyah*, about a mile and a half inland. *Jebel Zī*, a conspicuous wedge-shaped rock, 232 ft. high, stands close to the shore. *Jebel 'Umari*, a prominent landmark, lies about 7 miles to NNE.

3½ m. *Bir Am Seimah*, well, about one and a quarter miles east of track.

7 m. *Bir Jedid*, water ; bushes and scrub ; grazing for camels.

2 m. *'Ubeidiyah*, fishing hamlet ; water very scarce.

Dir. N. by W., along the low sandy shore to end of stage.

165 28 **MOCHA**, town ; see I, p. 172 f.

ROUTE 61

ADEN—MUSEMIR—QA'TABAH—YERĪM—SAN'Ā

Authorities : Aden Military Report, compared with Manzoni, 1877-80 (Aden-Musemir-Qa'tabah). Harris, 1892, Manzoni, 1877-80, compared with Aden Mil. Report and War Office Handbook (Qa'tabah-Yerim-San'ā). Altitudes from Lt.-Col. Maunsell's map, except where otherwise stated.

General Direction : NNW. to about Musemir ; then NNE. to Qa'tabah ; then N.

Distance : Crow-fly, 192 miles ; road, 227 miles.

Character and Supplies : see p. 57 f.

miles.
total. stages.

ADEN, town ; see I, p. 203 f.

Dir. N., along good road to Sheikh 'Othmān ; see above, Route No. 60, p. 262.

6 m. **Sheikh 'Othmān**, town ; see I, p. 204 f.

[Inland road leads off W. to *Mafālis* and to *Sheikh Sa'id* ; see Route No. 60.]

Dir. NW., at first over hard sandy ground ; good going all the way to Lahej.

1 m. **Dār el-Amīr**. Three alternative tracks lead to Lahej : (a) Eastern, near Fiyūsh (details

miles.
total. stages.

below); (b) Middle; (c) Western through Waht (details below). Take the *Middle* track (b), which is the shortest of the three alternatives (14 miles).

Dir. NW.

4 m. *Bir Mohammed* passed; then *Bir Nāsir*, *Bir Amīr* (or '*Umar*'), and *Bir Makki*, all on E.; water good and plentiful at each; at first through acacia jungle, then open and sandy again.

5 m. *Sibir* (Subar), hamlet with conspicuous tower and 3 good wells; forage and supplies in moderate quantities.

Jalājil, hamlet among sand-hills; 2 good wells. Road enters cultivation 2 m. before Lahej.

21 21 **LAHEJ**, populous town of 10,000–15,000 inhabitants; see I, p. 208.

[The following are the two alternative tracks, (a) and (c), from Dār-el-Amīr to Lahej:

(a) *Eastern*.

Dār el-Amīr; see above (m. 7 of route).

Dir. due N. over open sandy desert, generally good and firm.

3 m. *Dār Mansūr*, a little to E.; 2 wells, indifferent water. Heavy going through sand.

2 m. *Dār Sheikh Nāsir*.

2 m. Mud-built shrine of *Salīm 'Othmān*. Open camping ground and good well. *Fiyūsh* is 1 m. to E. Country wooded with mimosa; road continues through heavy sand.

2 m. *Bir Sa'id 'Alī*, camp on firm sandy ground; 3 wells with ample supply.

[For the direct track from *Bir Sa'id 'Alī* to *Bir Am Seifi* (see below, p. 267), which does not pass through Lahej, see Route No. 63, p. 280.]

LAHEJ (17 miles from Dār el-Amīr); see above.

miles.
total. stages.

(c) *Western.*

Dār el-Amīr; see above, p. 265 (m. 7 of route).

Dir. W. by N. through open sandy country; good going, but heavy in places.

9 m. *Bir Maheit*.

4 m. *Darb*, small thriving village near edge of *Wādi Kebīr*; mud fort and 2 wells, good water, but supply limited; forage plentiful. Track now runs across cultivation.

$\frac{1}{2}$ m. *Sharj*, 2 wells, good water, but not abundant.

1 m. **Waht**, large village on *Wādi Kebīr*; 5 wells, good and plentiful water; forage abundant. Going soon becomes heavy.

$2\frac{1}{2}$ m. *Mahallah*, good-sized village, $\frac{3}{4}$ m. from edge of *wādi*. Forage abundant; 5 wells, good and plentiful water. Thence road becomes a bridle-path through fields.

3 m. *Mukeibirah*, hamlet surrounded by date-palms; 3 wells, good water.

LAHEJ (21 miles from Dār el-Amīr).]

21 21 **LAHEJ**: see above, p. 266.

Dir. due N., through cultivation.

2 m. Cross *Wādi es-Saghīr*; easy going over stony bed of *wādi*, which is dry except in flood-time.

1 m. *Bir Am Seifi*, camping-ground at edge of desert; 1 well. [Road to Qa'tabah, via Dhāla, goes off N.; see Route No. 64, pp. 282 ff.]

Dir. NW., roughly parallel with bank of *Wādi es-Saghīr*, over firm open ground.

$1\frac{1}{2}$ m. *Wādi el-Khair*, camping-ground on open sandy space W. of road. Water from river ample at all seasons, but in flood-time it runs thick and should be filtered; river bed here 200–400 yds. wide. Watering-place for men NW. of camp, for animals SW.

Dir. NW., over firm open ground for 1 m. to head of Lahej delta; then very heavy sand for about 2 m., afterwards ascending to firm ground through cultivation.

miles.

total. stages.

4½ m. *Zeidah* (Zeyāda), a mud-walled fortified enclosure, to W., on bank of *Wādi Tiban*; 1 well, good and plentiful water.

1½ m. *Sha'qah* (Shaka), mud-built village on bank of the wādi; good camping-ground near, and 2 wells.

Dir. N. by W., continuing along bank of W. Tiban. When path is flooded and fields near bank are under irrigation, a good track can always be found by going a little to the east.

Wādi Bilih crossed at its junction with *Wādi Tiban*.

1 m. *'Anad*, a small fort marking the Haushabi border.

Good going over open stony country.

3½ m. *Nūbat Mahdi*, tower on a hill.

1½ m. *Dār Husein*, tower on a hill.

40 19 **Nūbat Dakīm**, on low hills and open stony plain; extensive camping-ground. Water from river, but precautions are necessary in time of flood, to clear and filter it, as the water is there said to produce fever; no forage is obtainable, except by arrangement with the neighbouring Haushabi tribesmen.

[Road to Qa'tabah, via Khoreibah, goes off N.; see Route No. 63, p. 280.]

A good cart road, made by sappers and miners, runs to Dar 'Aqqan along l. bank of *Wādi Tiban*, the bed of which is 80 ft. below. Mountains now gradually rise higher on each side of wādi.

Dir. NW., over open level ground.

3 m. *Tannan*, disused *dār*. Road crosses several deep ravines.

4½ m. *Jawl Madram*. Good camping-ground on either bank; some cultivation in river bed; small quantities of forage. Track continues over level ground for 3½ m., and then crosses two deep ravines.

4½ m. *Dār 'Aqqan*; forage and ordinary supplies. Military post (1903) 1½ m. distant. [Road, via Huweimi (13 m.), Rahda (26 m.), to Ta'izz (54 m.) goes off W.]

miles.
total. stages.

Track descends into river bed, but soon ascends again and goes along l. bank of wādi, here well marked, to *Habil Am Suweida* (pron. Masweida). Track then diverges from wādi and keeps close along the foot-hills, so as to avoid mouths of deep ravines which run into Wādi Tiban. (In the dry season Arabs prefer to follow the river-bed; but, if there is danger of storm and flood, the upper road is preferable.)

3 m. A gorge, $\frac{1}{4}$ m. long, is entered, up which the track runs. If there is flood, it is necessary to wait until the water falls. Track then goes through some fields in river-bed for about $1\frac{1}{2}$ m., when it comes out again on to l. bank.

58 18 **Musemir** (Mus'aimir), town; see I, p. 211.

[Road leads off l. to Māwiyah and Ta'izz; see Route No. 62, p. 276 f. An alternative track to Qa'tabah winds NE. up the cultivated Wādi Tiban, 200–300 yds. wide, with steep banks 100–200 ft. high, but with an insignificant stream in the dry season.]

$4\frac{1}{2}$ m. *Bāshiriyah*, village. A little distance above, the valley narrows to a rocky gorge; the stream is sometimes dammed here for irrigation purposes, when it is necessary to wade for a short distance in 2 ft. of water.

$1\frac{1}{2}$ m. *Lijmah* (Lajma), wide cultivated part of wādi; good camping-ground; forage, fuel and grain are procurable with notice. The stream here runs about 20 ft. wide and a foot deep in the dry season.

Valley narrows, then opens out into wide cultivated expanse.

Kama' passed. Just above, wādi narrows to defile, then widens out again; track crosses and recrosses the stream; its bed is here stony, but going is good except for occasional wading.

3 m. *Wādi Shan* is passed, up which a track branches E. to Khushan. At this point Hau-shabi territory is left and Ahmadi entered.

miles.
total stages.

Khurba and several other small villages are passed.

3½ m. *Wādi Hilhal* is passed, up which a track branches W. to *Māwiyah*. Road crosses and recrosses the stream in *Wādi Tiban*, passing hamlets of *Takafal* and *Rauna* on l. bank.

1½ m. *Hisn*, good camping-space. *Tiban* here 20–30 yds. wide in dry season and 1 ft. deep in places. *Wādi* contracts to a narrow gorge, and then widens out again. Here a good route to *Māwiyah* and *Ta'izz* leads W. up *Wādi Tisan* (*Qaisān*).

Pass *Hujra* and *'Arish*, hamlets with stretches of cultivation; 2 m. to *Wādi Tabaghein*.

74 16 *Wādi Tabaghein* branches in r. Roads come in r. from *Dhāla*, down this *wādi*. At its mouth is a good camping-ground, where supplies are available. From this point the track lies along the bed of the stream, and it is sometimes necessary to wade; it is practicable only in dry seasons. The stream is narrowly enclosed between lofty precipitous hills; there is a little cultivation along the banks.

2 m. *Rahwah 'Abdullah*, at entrance of a gorge; difficult passage for any but lightly laden camels.

1½ m. *Sareisara*.

1½ m. *Hafasa*; above this point another rather difficult gorge is passed, dangerous in event of storm and freshet. Working party should go on ahead to clear obstacles; then no great difficulty would be experienced.

2 m. *Haiifa*.

2 m. *Karad*, good camping-ground.

Above *Karad*, the *wādi* is known as *W. Humān* or *W. Qa'tabah*. No information about the next few miles; but the Boundary Commission marched down the *Tiban* in December 1903 from *San'ā*.

5 m. *Sarm*, village a short distance to E.

miles.
total. stages.

- 2 m. *Habi es-Sūq*. Here the river is probably left, and the track goes NE. for 4 m. to Qa'tabah.
- 94 20 **QA'TABAH**, town (alt. 4,430 ft.); see I, p. 170. The town lies about 3 m. off the main road, to the N.; a branch road runs into it from the Custom House on the side of the main road.
- Dir. N. across very hilly country.
- 13 m. *Saddah*, village; road enters village from S. and goes out due W.; then bears N.
- 21 m. *Hamra*, village.
- Dir. W. at first, then NNW.; track said to be good, but it continues to pass through hilly ground.
- 136 42 **YERIM**, town; see I, p. 169.
- Between Yerim and San'ā there are regular caravanserais, some reputed to be clean and comfortable.
- Road proceeds for considerable distance straight and level, but the ground is generally broken, and the going bad till about 5 m. from Dhamār.
- 12 m. Road overlooks the strikingly deep *Wādi el-Kha* to l., full of coffee-plantations beside a stream; then gentle ascent.
- 2 m. *Dijishub* (Dijisul), village, including a few rough stone huts, to r.; at a short distance from village are a number of small tanks supplied with good cold water from spring; farther on, 3 other sets of tanks. A large mass of rock has fallen near here, partially blocking the road. A short ascent over *Neqil el-Jarr en-Neba* (alt. 7,200 ft.); then about 5 m. level ground to Dhamār el-Jarr.
- 8 m. *Dhamār el-Jarr* (Castle of Jarr), village of some size, with fortress built on summit of isolated hill. 3 m. to Dhamār.
- 161 25 **DHAMĀR**, town; see I, p. 169 f.
- Dir. NW. for about 5 m., then N. by W., by slight ascent, to bare stony plateau, passing village of *Jaffa*. Along this stage are several well-built tanks, near the road; there are a number of wells in the neighbourhood.

miles.
total stages.

Road continues along plateau, and then makes a descent over broken ground to plain with sparse cultivation; then 8 m. good going to *Ma'ber*. When approaching the village, *Jebel Doran*, a lofty peak of curious form, is a landmark to W.

- 178 17 *Ma'ber* (alt. 8,150 ft.), poor village of about 20 houses of mud-brick with a little stone masonry; small garrison.

Dir. N. by W., over dusty plateau for about 16 m.

- 15 m. *Qaryat en-Neqil*, village to r. at entrance of pass, guarded by stone fort or watch-tower on r. side of road; alt. 9,000 ft. Ascent of pass by extremely steep and roughly paved track, so slippery that riding is impossible; the paving is carried away in parts by ravine-freshets; width of road not more than 10 ft.

- 2 m. *Neqil el-Hessel*, small post at summit of pass (alt. 9,500 ft.), shut in by abrupt hills 600 ft. higher.

A steep descent, and 3 miles rough going along broken valley.

- 2 m. *Beit ez-Zeidah* (Bisedd), small village to r.
2½ m. *Khadar*, Jewish village, partly walled; several caravanserais. Mountains on all sides with fortified villages on peaks. The inhabitants are agricultural; the fields, watered from wells, produce clover in particular, for San'ā market.

Not very good going for about 7 m.; track at first descends; then a short ascent.

- 206 28 *Wa'lān*, village of clean, large, and solidly built houses. Water plentiful, from wells. From this point to San'ā the inhabitants are notorious for robbery and pillage.

The track is good most of way, along *Wādī Beni Matar*, to 'Artaz.

- 9 m. *Mehājer*, fortified post lying a little distance off to r.
4 m. 'Artaz (Essiaz, Hizyaz), large village by good stream of water, called *El-Aswad*, which

miles.
total. stages.

supplies water to the Hospital of San'ā;
considerable cultivation.

Good going along level ground to San'ā.

227 21 **SAN'Ā**, town (alt. 7,550 ft.) ; see I, pp. 165 ff.

[The following *Alternative Route* from Dhamār to San'ā is slightly shorter, but it goes over very mountainous country ; it is impassable for wheeled traffic, though practicable for pack animals. Water is plentiful from streams and wells ; fodder plentiful ; other supplies very limited :

DHAMAR ; see above, p. 271 (m. 161 of route).

Dir. N. by W.

15 m. *Rada'* ; track descends a stony water-course.

7 m. *Zirajah*.

13 m. *Nuseil Zirajah*, important village. Winding path through a valley.

6 m. *Seyyan*, village. Winding mountain path.

11 m. *'Artaz* ; see above (m. 219 of route).

SAN'Ā (60 miles).]

[An *Alternative Route* from Qa'tabah (m. 94 of route) to Yerīm, via Sobe, followed by Manzoni (1877) and Harris (1892), is described below ; distance about 60 m. Manzoni's altitudes are given. Water is abundant along the road and the mountain valleys are often well cultivated :

QA'TABAH (alt. 4,060 ft. ; but see above, p. 271).

Road goes W. for about 8 m., then turns due N. *Azab* (alt. 5,290 ft.), large village perched on hill ; numerous walls and towers.

Constant short ascents and descents ; then a winding path, on face of precipitous mountain-side, climbs up to alt. 8,000 ft. ; then a descent and fair going till a few miles short of Hadda.

Hadda village, the approach to which is by a difficult zigzag ascent through a pass.

Neqil Hadda ; alt., at summit, 6,900 ft. The peak of *Nuqtat el-Hadda* (alt. 7,400 ft.) lies on l.

miles.
total. stages.

Descent from pass through narrow enclosed valley.

Sobe (*Sobah*) (alt. 6,420 ft.), principal stronghold of the 'Aud tribe; situated near Wādi Bana, in which is a large perennial water-course; country thickly populated and dotted with villages; descent to

Ma'ber. After about $\frac{1}{2}$ hr. (on donkey back), enter *Wādi Bana* at

Hulzah, and follow wādi up for another $\frac{1}{2}$ hr. to *Seddah* (alt. 6,620 ft.), small town with damp feverish climate. Just beyond, road leaves the Bana, turns N., and follows its tributary, the *Wādi Khuba* (*Thuba*), by steep rocky ascent to

Sūq eth-Thuluth (alt. 7,200 ft.). Track continues to climb up Wādi Khuba; it is often merely a 'footing' cut in the precipitous sides of the wādi, and perilous; at several places on the way there are well-built drinking-troughs. After an hour

Neqīl el-Khuba (alt. 7,670 ft.); thence a very easy descent and a considerable stretch along a wide stony plain (gen. alt. 7,000 ft.), devoid of vegetation from complete absence of water.

Arba'at el-Qala' (Gala'), village and junction of four roads (alt. 7,560 ft.). Roads S. to Māwiyah; W. to Ibb; and NE. to Yerim. About $3\frac{1}{2}$ hrs. good going, with gentle ascents and descents; then over level plain to

YERIM, town (alt. 7,800 ft., according to Manzoni); see above, p. 271 (m. 136 of route).

ROUTE 62

ADEN—MUSEMIR—TA'IZZ—IBB—YERİM

Authorities: Aden Mil. Report, compared with Manzoni, 1877–80 (Musemir to Ta'izz). Manzoni, 1877–80, Niebuhr, 1762, Military Report on Arabia, compared with and supplemented by Aden Mil. Report (Ta'izz to Yerim).

Altitudes throughout the route are taken from Lt.-Col. Maunsell's map.

General Direction: NW. to Ta'izz; NE. by N. to Yerim.

Distance: Crow-fly, 116 miles; road, 194 miles.

Character and Supplies: see p. 58.

miles.

total. stages.

ADEN, town; see I, p. 203 f.

[For the section of the route as far as Musemir see Route No. 61, pp. 265 ff.]

58 58 **Musemir**, town; see I, p. 211.

Dir. W. by N.; cross *Wādi Tiban*; then a well-defined track ascends to plateau on r. bank; going good from this point.

2 m. Dry ravine crossed.

Dir. NW.; cross *Wādi Dabuka*, a dry tributary of *Wādi Warazān*, which itself is an affluent of the Tiban, by well-graded descent and ascent.

1 m. Enter *Wādi Dabuka* again; after a short distance, the road leaves this wādi and goes over a stony plateau to a point near the junction of *Wādis Fākir* and *Warazān*.

3½ m. Well-graded descent into *Warazān* bed; clear perennial stream. Ascend out of *Wādi Warazān*.

1 m. Turn up dry bed of *Wādi Nashim*; after ½ m. leave this ravine.

Dir. WNW., crossing some ten small ravines; these continual ascents and descents are especially trying for baggage camels.

1½ m. Some shallow water-holes in *Wādi Juwah*.

1½ m. Cross *Wādi Na'mān*.

69½ 11½ **Darajah** (Addareja), hamlet; 2 groups of small towers and stone huts lie on low hills on either side of track.

Dir. NW.; track descends.

miles.

total stages.

- $\frac{1}{2}$ m. *Wādi Milah*; some cultivation on banks. Ascend this wādi.
- 2 m. *Mizada*, small hamlet, on l. Hamlets of *Sarwa* and *Rafad* on r.
- $\frac{1}{2}$ m. *Wādi Milah* here bifurcates: to r., *Wādi Karkahan*; to l., *Wādi Lasb*. In *W. Karkahan* ample camping-ground; good perennial streams, reported never to fail, in this wādi and in *Wādis Ziyak* and *Rada* close by; forage obtainable in neighbourhood.

Track ascends 100 ft., between fork of *Wādis Karkahan* and *Lasb*, to upland, the *Habil 'Arabi*; there is then level going for about $3\frac{1}{2}$ m.

- 1 m. *Shabwah*, village, about 1 m. to l.; 10 houses and a white mosque.
- 1 m. Turkish frontier crossed.
- $1\frac{1}{2}$ m. *Daba*, Turkish village to l.; one well.
- Dir. NW., gradually ascending *Wādi Daba* (where there are 2 wells), to a pass giving access to *Māwiyah*; ascent of 200 ft. to summit, presenting no difficulty except in two places over slippery rock, but commanded on either side from heights above.
- $5\frac{1}{2}$ m. *Neqil Māwiyah*; altitude, at summit, 4,550 ft. Slight descent of about 50 ft.

- 82 $12\frac{1}{2}$ **Māwiyah**, village of about 30 houses, on a clear stream (Manzoni), with mosque and tomb (*Qubbah Sidi Hasan*) about 100 yds. distant; situated on southern slope of *Jebel Daba*, looking down on rich cultivated valley with palm groves.

Dir. almost due W., round northern slope of *Jebel Daba*; ascending, but good camel and mule track.

- 3 m. Shrine of *Wali Hajji Marum*, at top of a pass. Good water from wells at villages of *Halil* to r. and *'Asariyah* to l., both about half a mile distant.

Sharp descent of 800 ft. in $\frac{1}{4}$ m., to the plain of *Sa'iyah*; then good level track across cultivation, and an easy ascent up pass of *Neqil Rakab*.

miles.
total. stages.

- 3 m. *Neqil Rakab*, summit of pass. Steep descent.
1 m. *Wādi Sūdān*; flowing water, but reported bad for drinking.

Cross *Wādi Sūdān* and ascend to *Henna* plain.

- 2 m. *Henna* plain (5 m. by 3 m.), rich pasture; many fine cattle. Track skirts southern edge of plain; then a stony ascent up moderate gradient.

- 3 m. *Neqil Mushakdif*; track crosses cultivation.

- 1½ m. *Huzum*, village; 2 wells, good drinking water; a good half-way halt from *Māwiyah*.

Dir. N. of W., by gentle descent.

- 1 m. *‘Ariba*, some fifteen huts; wells of drinking water. White minaret of *Jened*, conspicuous 3 m. to N.

Excellent track across watershed between *Wādi Sūdān* and *Ta‘izz*.

- 3½ m. *Dār es-Sākin*, white tower to r.; large well near, 15–20 yds. in diameter, with abundant water.

[Road from *Jened* joins on r.]

Dir. SW., descending.

- 2 m. Near white-domed tomb (*Qubbat el-Hauban*), the road joins the *Yerim-Ibb* road into *Ta‘izz*, about 9 m. distant. Enter *Ta‘izz* by Eastern Gate (*Bāb el-Kebīr*), after a short ascent.

111 29 TA‘IZZ, town; see I, p. 168 f.

Dir. E., leaving by the *Bāb el-Kebīr* and returning to 8 m. *Qubbat el-Hauban*.

Dir. N. by E., for 6 or 7 m. across sandy plain, almost desert; fairly good going; then along a more or less fertile valley.

- 8 m. *Amaki*, small village to r., partly in ruins; alt. 4,750 ft. Road continues to ascend the valley.

- 5 m. *Qa’dha*, small village to l., with *caracol* (guard-house), to r.; alt. 5,400 ft. Ascent now becomes somewhat steeper.

5 m. Valley begins to narrow considerably.

- 141 30 *Sūq el-Maharas*, village at foot of *Jebel Maharas*; alt. 7,050 ft.

miles.
total. stages.

Between this place and San'ā, at almost every half-day's journey, are large inns (*simsaras*), which afford safe lodging, and where most ordinary supplies are to be found, such as rice, coffee, butter, bread, &c. (*Niebuhr*).

Road makes steep winding ascent for $\frac{3}{4}$ hr. to *Maharas Pass* (alt. 8,500 ft.), the highest point between Ta'izz and Ibb, well paved in parts; it then descends.

2 m. *Nejīd*, rather large village, to r.

Dir. N., then NW., slightly descending.

7 m. **Jiblah**, town of about 1,200 houses; alt. 6,760 ft.

1 m. *Udah*, village; thence a very steep descent.

2 m. *Arma*, water-troughs for animals; about 4 m. to Ibb.

157 16 **IBB**, town (alt. 6,720 ft.); see I, p. 170.

Dir. N. by E., down a broad valley with river, alongside which are water-tanks and shelter-houses at intervals; the first mile well paved, then 2 m. of steep zigzag descent.

4 m. *Lahwad*. The river has to be crossed two or three times in the following three miles; the Military Report, referring to the rainy season, says: 'As it rains hard every day between 3 and 4 p.m., it is necessary to finally cross the river before 5 p.m., as by then it is unfordable.'

3 m. *Sūq ez-Zabtah*; alt. 5,390 ft.

Track soon becomes more hilly and ascends.

174 17 **Mekhāder**, village on summit of hill, the main portion lying to l. of road; alt. 5,820 ft.; market on Thursdays; small garrison.

Dir. N., at first, down an easy slope; at 2 m. *Barqein* and an awkward water-gully; then road turns E. by N., following a narrow valley, and going for 3 or 4 m. through park-like country, with orchards and gardens of mangoes, peaches, figs, mulberries, bananas, &c. Leaving this, the track climbs a long steep zigzag ascent, with badly paved surface.

miles.
total. stages.

6 m. *Samārah*, small walled village of mud-built houses, to l., with commodious inn, half-way up pass; ruined castle on neighbouring height.

Ascent now fairly easy for $\frac{3}{4}$ m.; then track becomes steep and tortuous again.

2 m. *Samārah Pass*, summit; alt. 9,400 ft.; highest point between Ibb and Yerim.

Dir. NE., by a tortuous descent to cultivated plain, with general elevation of 8,600 ft.; then, for some 8 miles, the track runs more or less on the level, along green valley, passing small hamlet of *Madraḥ*.

6 m. *Arba'at el-Qala'* (Gala'), village and junction of four roads. [Road here comes in SE. from Qa'tabah via Sobe; see Route No. 61, p. 274.]

194 20 **YERĪM**, town; see I, p. 169.

ROUTE 63

ADEN—QA'TABAH

(via Nūbat Dakīm and Khoreibah)

Authorities: Aden Mil. Report, supplemented by information from Harris, 1892, and Manzoni, 1877–80.

General Direction: NNW. to Nūbat Dakīm; then, roughly, N.

Distance: Crow-fly, 81 miles; road, 90 miles.

Character and Supplies: see p. 58.

miles.
total. stages.

ADEN, town; see I, p. 203 f.

[For routes from Aden to Nūbat Dakīm via Lahej, see above, Route No. 61, pp. 265 ff. A more direct route via Bir Salīm, which corresponds at the beginning and end with Route No. 61, is given below. For details of the stage to Bir Sa'id 'Ali see Route No. 61, p. 266; take the *Eastern* of the three alternative tracks starting from Dār

miles.

total. stages.

el-Amīr, which passes Bir Sa'īd 'Alī 8 m. before reaching Lahej.]

- 16 16 *Bir Sa'īd 'Alī*, 3 wells; see above, p. 266.

Dir. N. through cultivation.

1½ m. *Wādi es-Saghīr*. Follow up stony bed of wādi for ½ m. (or a track may be taken along l. bank); then leave wādi and turn NW.

3½ m. *Bir Salīm*, well; water plentiful but in-different.

[Track from Lahej 2 m. to W., joins in.]

- 24 8 *Bir Am Seifi*, camping-ground; see above, p. 267.

[For details of stage from Bir Am Seifi to Nūbat

Dakīm see Route No. 61, p. 267 f.]

- 40 16 **Nūbat Dakīm**, camping-ground; see above, p. 268.

Dir. N., ascending over stony ground; then a descent.

1½ m. *Wādi Bilih* is entered and followed for about 7 m.: or a good alternative road, made in 1903 for some distance along l. bank, may be taken.

5½ m. *Mallah*, camping-ground much used by caravans, but supply of water rather scanty and impure. *Wādi Bilih* soon makes a bend, and the track leaves it and turns up a dry wādi-bed; at 1 m. it comes out upon an open stony plateau with good firm going; then a descent between rocky hills to *Milāh*.

6 m. *Milāh*, group of poor huts, on r. bank of *Wādi Milāh*. Camp on l. bank, where there is a large new well, with ample supply of good water; a little forage may be obtained locally. Military post (1903), on low rocky hill 500 yds. NE.

[Tracks go off r. for Hajar and Sauda.]

Dir. N. of E. towards *Jebel Jimil* (a landmark), among rocky hills, but good firm going.

6 m. Descend into *Wādi Am Suheibīyah* (just below *Jebel Jimil*), and turn N. up stony bed of wādi, on to the stony *Habilein* plateau, where the territory of the Emir of Dhāla is entered; the village of *Suleiq* (site of a military post) lies a little to E. Cross plateau.

miles.
total. stages.

- 4 m. Descend by steep gradient into *Wādi Har-daba*, and follow up its winding stony bed.
- 65 25 *Ghail Hardaba*, camping-ground, but rather restricted; there are springs, and water can also be obtained by digging anywhere in the bed of the wādi. Military post on summit of hill rising 200 ft. above l. bank. Continue up the winding *Wādi Har-daba*, narrowly enclosed by steep hills and fringed with tamarisk; bed shingly, but track fairly good.
- 4 m. *Kaflah*, village and custom-post of Emir of Dhāla.
- $\frac{1}{2}$ m. *Hamra*, village to l.; 2 wells, but scanty supply. *Wādi* now opens out and becomes less winding.
- 3 m. *Radu'*, site of a military post, on hill on l. bank; small camping-ground; 2 wells N. of village.
[Track goes off NNW. to Dhāla, over the Rabadh pass; it is bad in places, and camels must be lightly loaded.]
- 2 m. *Markula*, to E.
- 1 m. *Dimma*, on a hill to W.; here wādi narrows to gorge between high precipices.
- 77 12 **Khoreibah**, settlement, with tower of Sheikh of the *Al Beshi* on a rocky spur commanding the route; small spring a little above in a ravine; forage and a few cows and goats obtainable.
- 1 m. Foot of *Neqil el-Khoreibah*, where there is a custom-house (alt. 3,500 ft., according to Manzoni). Severe ascent by zigzag track, commanded on either side by hills, 200–600 ft. high; passable for camel transport; ascent takes about $\frac{1}{2}$ hr. by camel. Altitude at summit, 4,200 ft.; here there is a well of excellent water, and other springs on the way up. The town of Dhāla lies about $2\frac{1}{2}$ m. to SW.
Fairly easy descent to vast cultivated plateau. [There are two other paths by which the pass may be traversed: one by W.

miles.
total. stages.

the side of a gorge, steep and winding, to *Jarba*; the other by E. side, also steep and winding, to *Ushāri* and *Kurein*.]

3 m. **Jalilah**, village; 5 wells, with plentiful supply; see I, p. 212.

Dir. NW. between hills and through cultivation, past villages of *Lakmat el-Hajifar*, *Jalas* and *Wābah*; the path then descends into an open cultivated valley, crosses low ridges, and descends into another cultivated valley; thence 2 m. through crops and 1 m. over rocky undulating plain to *Sanah*.

6 m. *Sanah*; boundary village, before entering Turkish territory; 1 well, with good water; custom-house.

90 13 **QA'TABAH**, town; see I, p. 170.

ROUTE 64

ADEN—QA'TABAH

(via Dhāla)

Authority: Aden Military Report.

General Direction: N. by W.

Distance: Crow-fly, 81 miles; road, 90 miles.

Character and Supplies: see p. 58.

miles.
total. stages.

ADEN, town; see I, p. 203 f.

[For the first stage, from Aden to Bir Am Seifi, see the alternative tracks via Lahej or Bir Salim given in Routes Nos. 61 and 63, pp. 265 ff., 279 f.]

24 24 *Bir Am Seifi*, camping-ground; see above, p. 267.

Dir. N. across desert tract.

3 m. Cross *Wādi Bilih*; well of *Bir Dajan* in bed of wādi. Then over undulating sandy country; heavy going and a steady rise.

7 m. *Jebel Keira* (alt. 2,100 ft.), a rocky spur

miles.
total. stages.

standing up out of the sand, passed to E. ; then over firm gravelly soil with belts of mimosa scrub.

2 m. Track comes in l. from Sha'qah, across the desert.

2 m. Track goes off NE. to Mijbah, 2 m. distant.

Road now goes up bed of a dry water-course ; in wet season, a track along the hill-side must be taken, where going is very slow and difficult.

44 20 *Dār Sheiban*, small Haushabi village ; well, with good water at 50 ft. ; camping-ground ; forage obtainable.

Dir. N. up *Wādi Suheib*, at first over firm stony ground, then through cultivation.

4½ m. *Dār el-Hajar*, first village of stone-built houses. 'Alawi territory is entered here.

2½ m. *Sauda*, village to r., on slope of conical hill. *Kashah*, principal village of the 'Alawi, one mile to E.

Track follows up dry stony bed of *Wādi Am Suheibiyah*.

54 10 *Jimil*, large village at foot of isolated hill on r. bank ; one well, with abundant supply of good water ; plentiful forage and other supplies.

Dir. NW., leaving the *Wādi Am Suheibiyah*, up stony bed of *Wādi Tuwanna* ; track very rough, but presenting no difficulty for camel transport.

3 m. *Tuwanna*, village, with 1 well of good water.

Follow up bed of wādi, which is narrowly enclosed between rocky hills.

5 m. *Rasafa* ; here the wādi becomes a narrow gorge, with very shingly bed ; good perennial springs.

2 m. *Alela* ; settlement of Azraqi nomads. As the river bed is here obstructed by boulders, the track, very rough and out of repair, leads along the hill-side, afterwards crossing to opposite bank of wādi.

1 m. Leave *Wādi Tuwanna*, and ascend 900 ft. in 1½ m. over *Neqil Tuwanna* ; gradient

miles.

total. stages.

nowhere steep. At summit track turns NE. for $\frac{1}{4}$ m., then E.

- 70 16 **Dhubayyat**, thriving village of 400 inhabitants; 4 wells, with good drinking water, about 300 yds. N.; also large masonry reservoir for rain-water about $\frac{1}{2}$ m. E.; cultivation, and considerable herds of goats and sheep. White Shrine of *Wali Hasan* on conical hill, 5,900 ft. above sea-level, 1 m. E.; a landmark and useful for signalling communication.

Dir. W. of N., by steep rocky descent, the track then winding over stony ground. The whole of this stage to Dhāla is very rough, but practicable for laden camels.

- 3 m. Enter a gorge, with waterfalls $\frac{1}{2}$ m. farther on.
 $1\frac{1}{2}$ m. *Zanadh*; 1 well with good water; considerable cultivation. Track then ascends a low pass, into open cultivated valley.

- 2 m. *Kaflat ez-Zobeid*, village at far side of valley; 3 wells, the best situated W. of village.

Track comes in E. from Rabadh.

2 m. to Dhāla, passing *Habil Dhi Ishar*.

- 78 $\frac{1}{2}$ 8 $\frac{1}{2}$ **DHĀLA**, town; see I, p. 211 f. During the following stage the track is very rough and winding.

Dir. N. for half a mile, then NNW., with a gradual descent.

- 1 m. *Kabar*, village on hill, E. of road.

- 2 $\frac{1}{2}$ m. *Wa'ra*, village; one well.

- 1 $\frac{1}{2}$ m. *Sureifi* (Sirafi), village with good well.

Road skirts *Jebel Jihāf*, passes small hamlets of *Sha'b el-As'ud* and *Bajaha*, and leads down *Wādi Haza*. Track then bifurcates, one branch approaching *Qa'tabah* through Sanah, and the other leading into *Wādi Tiban*.

- 3 $\frac{1}{2}$ m. *Sanah*; boundary village, before entering Turkish territory; 1 well, with good water; custom-house. For the following 3 m. into *Qa'tabah* the track corresponds to Route No. 63; see above, p. 282.

- 90 11 $\frac{1}{2}$ **QA'TABAH**, town; see I, p. 170.

ROUTE 65

ADEN—SHÜGHRAH

Authority : Data supplied by Lieut. Kensington, 1904.

General Direction : NW.

Distance : Crow-fly, 58 miles ; road, 63 miles.

Character and Supplies : see p. 59.

miles.
total. stages.

ADEN, town ; see I, p. 203 f.

Dir. N., along the Sheikh 'Othmān road ; see above,
Route No. 60, p. 262.

2 m. *Khōr Maksar*, Aden troop lines. Here the
Sheikh 'Othmān road is left.

Dir. N. by E., following coastline, on the level to end
of this stage.

8 m. Track goes off l. for 'Imād, about 3 m. distant.
After 2 m., road becomes heavy in places
for several miles, but passable for all arms.
One mile before reaching Hiswatel-'Akrabīyah
low sand-hills are entered and going becomes
very heavy.

25 25 *Hiswat el-'Akrabīyah*, no village nor cultivation ; one
well, close to sea, the water salt but drinkable ;
camp a little off main road ; scanty grazing for
camels.

Road crosses several sand-drifts ; heavy going
for $1\frac{1}{2}$ m. ; track then improves steadily.

$3\frac{1}{2}$ m. *Majhar (Mihjar)*, small village.
Good hard track, but encumbered by trees
and bushes, till reaching the cultivated district
known as the *Abiyān*, which begins about
 $3\frac{1}{2}$ m. from Majhar ; road then winds in and
out amongst crops and is generally only
broad enough for a loaded camel to pass ;
a guide should be obtained for this part.

$4\frac{1}{2}$ m. *Wādī Bana*, 400 yds. broad, increasing to
a mile in flood-time. *Zinjabar*, the first im-
portant Fadhli village is then passed : mud-
houses ; about 500 inhabitants ; principal

miles.

total. stages.

well close to village ; another well lies half a mile to NE., but water only fit for animals.

35½ 10½ **'Amūdiyyah**, a larger village than Zinjabar, about half a mile NW. of road ; two wells ; good place for camp NE. of village, where there is plenty of open ground.

Road for one mile rather heavy ; then very good all the way to *'Asalah*.

5 m. *Wādi Hasan* crossed ; 400 yds. wide, increasing to half a mile or a mile in flood.

4 m. *'Asalah*, deserted town, situated on small hill close to road on N. side ; one or two wells, but, when there is any water in them, it is brackish.

Road hard for two miles ; it then becomes sandy, and there is a very tiring ascent for two miles ; then a trying descent for about the same distance.

6 m. *Seilat Seilah*, dry river-bed about 150 yds. broad ; a shallow well about 300 yds. up the bed.

Road here approaches coastline and follows it more or less closely for rest of way, crossing three or four dry river beds (*seilāt*) with well in each, but water salt.

9 m. Road emerges upon level plain ; then winds in and out amongst small sandhills.

2½ m. *Seilat Udeba*, one well ; open ground to end of stage.

63 27½ **SHUGHRAH** (Shuqrah), town ; see I, p. 209.

ROUTE 66

SHÜGHRAH—NISĀB—YESHBUM—MAKALLA

Authorities : Data supplied by Lieut. Kensington, 1904, supplemented by details from Bent, 1897, and Bury, 1899; and Red Sea Pilot for section Bālhāf to Makalla.

General Direction : NNE. to Nisāb; ESE. to Bālhāf; NE. by E. to Makalla.

Distance : Crow-fly, 243 miles; road, 350 miles.

Character and Supplies : see p. 59.

miles.
total. stages.

SHÜGHRAH, town; see I, p. 209.

Dir. E., parallel with coast for 12 m., then due N.; at about $3\frac{1}{2}$ m. the track begins to ascend, is stony and bad, and suitable only for camel transport.

10 m. *Wādi eth-Themālul* crossed, where there are pools, but water foul. There is one spring which changes its position frequently; bad halting-place.

A steep ascent of about 300 yds. over a small pass; then for three or four miles track winds along beds of some small wādis (gravelly, and heavy going). In one of these, *Wādi Samluf*, plenty of trees, and grazing for camels all along it, but water bad for drinking purposes.

$4\frac{1}{2}$ m. A steeper ascent over a higher pass; at top, a short defile with precipitous sides so narrow that loaded camels go through with difficulty. Ascent takes about 8 hours.

16 16 *Rahwat el-Makānah*, name given to summit of pass; no people living near.

For half a mile a stretch of bad road; then good level track for about six miles across plain of *Jahein*, with patches of cultivation here and there. General altitude about 3,000 ft.; direction slightly to W.

$6\frac{1}{2}$ m. *Heid Lamas*, passed on r.

A track to Bir Lamas (see I, p. 214), goes off l., whence there is alternative track to Mis-hāl.

miles.

total. stages.

Dir. N. generally, over level ground for half a mile; then a gradual descent, difficult owing to loose stones.

2 m. *Wādi en-Nakhein*, dry river bed, with two or three rain-pools, but water bad owing to continual fouling by camels.

There is a good camping-ground about half a mile off road to W., and not very good water at *Bir Nakhein* still farther W., but difficult to reach. Trees fringe both banks of wādi; small patches of cultivation; good grazing.

Cross wādi to open plain of *Mis-hāl*, which is dotted with villages but ill supplied with water; $3\frac{1}{2}$ m. to *Mis-hāl*.

28 12 **Mis-hāl**, village, with one stone house, tower, and cluster of huts; deep well with brackish water, *Bir Mis-hāl*, about two and a half miles distant from road.

Dir. NE., winding through low foot-hills for about five miles to the *Sa'idi* plain. Track shortly passes striking landmark to l., the peak *Qarn Marshad*, 200 ft. high above plain.

10 m. *El-Ain*, hamlet; well, and scanty cultivation. This is the only water between *Mis-hāl* and *Dakhlah*.

3 m. *Heid el-Akad*, hill passed on r.

2 m. *Heid Khurf*, peak, one mile to l.

48 20 **Dakhlah**, hamlet to l.; much ground under cultivation, with good crops.

From this point there are alternative tracks to *Nisāb*: (a) westerly, followed in route; (b) easterly (see below, p. 293 f.).

Dir. NW., between peaks of *Kalah* and *Zibb*; at foot of latter there is a small settlement, *Hafa*, with two shrines. Track awkward, being much intersected by embankments, artificial gullies, and dry water-beds.

7 m. *Mijda*, village situated on l. bank of *Wādi Ruqub* upon spur of *Maran Range*; some 600 inhab.; the shrine of *Sīdi 'Amr Bin Sa'id*, a prominent landmark, close by, where there is a spring of good water,

miles.
total. stages.

which runs past village through covered channel.

Dir. NW. Road now crosses the *Kaur* ridge, which camels cannot ascend, and donkeys or mules must be used ; track very rough, at first through dense mimosa jungle ; a gorge is then followed up over blocks of stone (difficult both for men and animals to pass) ; 7,500 ft. at summit. Tall shrubs fringe track when crest is reached.

62 14 *Wādi Tilhak*, good camping-place near small Bedouin village, where there are goats and a few patches of cultivation.

Dir. N., continuing to rise for short distance ; then track descends in zigzags over succession of terraced tracts to *Wādi Dihaura*, which is followed closely ; 6 m. on, some pools are passed ; track exceedingly rugged and bad.

10 m. *Wādi Khalla* crossed to W. bank ; pools of water.

Road emerges upon the *Dahr* plateau which is mainly pastoral and agricultural, irrigated and well cultivated ; several good wells along plateau, the water said to be abundant all the year round.

74 12 **Sauma'ah** (Soma), unwall'd town of about 3,000 inhabitants ; see I, p. 216.

Dir. N. by E. ; for about seven miles the track is good, running across three successive plains ; then it ascends the '*Aqabah* along west bank of *Wādi Khalla*.

7 m. Track turns abruptly E. and leads by very steep descent into *Wādi Khalla*, with rough stony bed, wooded with mimosa and other bush. *Wādi Khaura* is then entered from *Wādi Khalla*, where *Wādi Surum* joins in on l.

90 16 *Wādi Khaura Pools*, a chain of permanent pools of good water. Track descends the *Wādi Khaura*.

4 m. *Wādi Tirimid* comes in on l., where again there are perennial pools of water ; thick clumps of tamarisk trees on banks.

miles.

total. stages.

- 2 m. *Wādi Khaura* opens out to width of about three-quarters of a mile; some little distance on, track emerges through narrow cleft to plain of *Khaura*, afterwards rejoining *wādi*.
- 7 m. *Setanan*, village with cultivation; 2 m. to end of stage.
- 105 15 *Hautah*, village, with considerable cultivation and a few date-palms.
 Dir. N. of E., over cultivation for some little way; then track finally leaves *Wādi Khaura* and traverses a succession of hills and gullies; it crosses the *Heid Diyan* range by an extremely steep and rugged pass, and descends to a plain dotted with thorny scrub.
- 5 m. *Wādi el-Hajar*, where there is a well; track follows this *wādi* for a short distance, then strikes across alternating barren sandy plain and rugged hilly ground.
- 6 m. *Wādi Subhān*; here cultivation recommences.
- 2 m. *Heid Qal'ah*. *Medāq*, a residence of the Sultan of 'Aulaqi, on a hill, here sighted.
- 123 18 **NISAB**, town; see I, p. 214 f.
 Dir. E., across a sandy plain.
- 4 m. (about). Track rounds a mountain spur, turns S., and enters *Wādi Hannak*, which it follows, crossing and recrossing the *wādi* several times until reaching *Jaul Mutti* plain. After some distance it bears SE. and goes through a defile.
- 14 m. (about). *Qarn edh-Dhi'b* (or *Dhi'āb*), an isolated rock, about 1 m. r. of path, which holds water for months after rain (practically the only water between *Nisāb* and *Seina*).
- Dir. SSE., good going, across the plain of *Jaul Dabra*, which is level but sandy and bare.
- 151 28 **Seina** (*Sena*), small town.
 Dir. N. of E., passing the small settlements of *Dakhul* and *Serra*. Route then traverses a level plain thinly wooded with mimosa and ascends to the cairn of *Sheikh 'Obeid*. It then bears

miles.
total. stages.

NE., descends a long gentle slope into a ravine, ascends a narrow pass, and descends into another ravine.

6 m. *Wādi Hebra*, a gorge-like valley, leading into the well-cultivated and wooded *Wādi Yeshbum*.

3 m. *Sa'id*, village, situated to l. of track, and *Wāsītah* to r.

Dir. E., along the shingly bed of *Wādi Yeshbum* for some little distance; track then ascends out of the *wādi* and runs along the crest of a ridge, above the village of *Kaulah*, to the *Furda Pass* by which it descends into the *wādi* again; the *wādi* is then followed to *Yeshbum*.

3 m. *Medal*.

Dir. E. of S.

165 14 **Yeshbum**, town; see I, p. 215.

Dir. SE., down the *wādi*, known at first as *Wādi Yeshbum*, then as *Ghail Habbān*.

10½ m. **Habbān**, town; see I, p. 230.

Dir. slightly S. of E., along the well-watered *Ghail Habbān*.

7 m. *Kidūr*, village; water.

205 40 *Naqb el-Hajar*, ruins surrounded by a wall, on a hillock in the middle of *Wādi Meifa'*; there is a masonry well here, with water at 60 ft.

Dir. ESE., down *Wādi Meifa'*, along which are wells, and also running water for some time after rain; good camel-grazing; valley is at first well-wooded with acacia and tamarisk, the trees becoming fewer as the route proceeds.

2½ m. Track crosses a hill of red sandstone, 200 ft. high. In the next 10 miles the following small villages are passed: *Jadwal 'Ajil*, *Sa'id*, *Mansūrah*, *Jadwal Sheikh*, *Gharījah*, and *Sahūn*; water is obtainable at each, either from springs or wells.

10½ m. A few very small hamlets passed in this section; trees and vegetation gradually disappear.

11 m. Road leaves *Wādi Meifa'*.

Dir. SE.

miles.
total. stages.

- 3 m. *Jebel Masinah*, a small sandstone hill, is passed.
- 7 m. Wells. Route descends a broad valley, among sandy hillocks topped with bushes; going bad.
- 4 m. An abrupt ledge, 400 ft. high, is reached, which must be descended; the track then traverses a belt of sand-hills.
- 250 45 'Ain Ba Ma'bad, hamlet of about 100 huts; some wells of good water at 3 ft. A route to Maqātīn goes off SW.
- Dir. E. by S., approaching the coast.
- 6 m. 'Ain Juweiri, hamlet of about 70 huts; springs of good water. Route now skirts the sandy coast, studded with bushes.
- 4 m. *Jil'ah*, a few huts; indifferent water. An isolated hill to the north is soon passed, on which are the remains of a tower.
- 265 15 *Bālhāf*, small port with little trade, and very few permanent inhabitants; see I, p. 230, Fresh water has to be brought from a distance; no supplies.
- Dir. ENE. along the shore all the rest of the way; bad going.
- 1 m. *Ras 'Asidah* is passed.
- 6 m. *Ras er-Ratl*.
- 5½ m. *Jebel Hisn el-Ghurāb*, 450 ft. high, a little distance N. of track.
- 279 14 *Bir 'Ali*, fishing village, with a square tower; fair water; two or three hamlets near.
- Dir. almost due E. at first; then it gradually bears NE.
- 7 m. *Majdahah*, hamlet, with indifferent water.
- 303 24 *Wādi el-Hajar* crossed; water here only after rain.
- 7 m. *Ras Rahmah*.
- 3 m. *Ghaidhah*, village 4 miles inland, where there is good water; date-groves and cultivation; grain obtainable.
- 5 m. Cross a ridge which terminates in *Ras Hiseisah*. Track now skirts *Julham Bay* and crosses *Ras Burūm*.

miles.
total. stages.

12 m. *Burūm*, fishing village with about 500 inhabitants; good water, date groves and some cultivation; good anchorage during the SW. monsoon.

Dir., at first N.; it then gradually bears round to E., by a sandy track along a narrow undulating plain between the shore and the coastal mountains.

350 47 **MAKALLA**, town; see I, p. 232 f.

The following is an *Alternative Route* from Dakhlah to Nisāb (see above, p. 237 f., m. 48 to m. 123 of route), which was traversed by Bury in 1900, in the reverse direction. It is difficult even for a small caravan, and is only used when the tribes along the westerly route are restless. The distances given are approximate, having been computed from a small scale map.

miles.
total. stages.

Dakhlah. Road at first skirts *Wādi Ruqub*; then, turning E., it traverses the '*Amūdiyyah* plain.

13 m. **Jiblah**, village; see I, p. 216; water probably abundant.

Dir. N. for three miles to the Maran Gorge.

6 m. *Maran Gorge* is entered; good camping-place. The march up the gorge is difficult and exhausting.

12 m. *Tulh Pass*, approached by a steep ascent up a deep ravine; altitude at crest 6,500 ft.

Track crosses a ridge, the watershed between the northern and southern wādi systems; it then descends by slippery track over gypsum rock into *Wādi Na'mān*.

Wādi Na'mān, which the track descends to its junction with *Wādi Khatib*.

22 m. *Wādi Khatib*, enclosed by abrupt and lofty heights, is now followed.

12 m. *Medīnah*, a stronghold of the Rabīzi, with several towers.

2 m. *Wādi Rahāb* here joins *Wādi Khatib* on l.

The bed of *Wādi Khatib* here becomes

miles.
total. stages.

impassable, so track scales r. bank of wādi, and after crossing a ridge it rejoins the bed of Wādi Khatib, which it descends as far as 'Abdān.

6 (?) m. 'Abdān, small agricultural settlement; name of wādi here changes to *Wādi 'Abdān*. Track continues to descend wādi, passing the Shrine of *Sīdī Mabār*; the wādi gradually widens, passing through miles of arable land, till it finally emerges upon the Nisāb plain.

80 **NISĀB**, town; see I, p. 214 f.

F. SOUTHERN ROUTES

ROUTE 67

MAKALLA (OR SHIHEIR)—HAUTAH—SHIBĀM— SEYYŪN—TERĪM

Authorities: Hirsch, 1893, to Terīm; Bent, 1893, to Shibām; Van den Berg, from native information; compared with the Aden Gazetteer.

Direction: Roughly NNW. to Haurah; then NNE., bearing almost E. to Terīm.
Distance: From Makalla, crow-fly, 109 miles; road, 203 miles. From Shiheir, crow-fly, 98 miles; road, 211 miles.

Character and Supplies: see p. 59 f.

miles.

total. stages.

MAKALLA, principal port between Aden and Muscat; see I, p. 232 f.

Dir. NNE., across arid waste; but, just outside town, road traverses valley, in which, by help of irrigation, coco-nut trees and bananas flourish.

2 m. *Mainah* (Moinah); here road bears to NE.

4 m. *Baqreïn*, small settlement and first halting-place; wells, some palms, and a bungalow belonging to the Sultan of Makalla; several small forts in neighbourhood.

Road leads through narrow stony wādi (barren except for scanty shrub), which widens as it proceeds.

2 m. *Harshiyāt*; track ascends to high ground.

2 m. *Hadbah*, camping-place.

Road now runs across stony upland and crosses *Wādi Raham*, where it is too steep in places for riding.

3 m. *Basrah*, hamlet; a few houses, water, and some cultivation.

3 m. *Tukhum*, sandy place; brackish stagnant water.

22 22 **Rashnid**, village. A little short of the village, road comes in r. from Shiheir.

miles.
total. stages.

[The following is the alternative approach from Shiheir :

SHIHEIR, port ; see I, p. 232.

Dir. W. for 3 m. along shore ; then road turns inland, over very loose sand.

7 m. *Zaghfah*, village, with palm-grove.

Track ascends and crosses low gypsum hills, over several small passes ; fairly steep in parts, but never necessary to dismount ; brackish water passed in two places.

3 m. *Sida*.

10 m. **Ghail Ba Wazir**, large overgrown village, described by Bent as ' a large town ' ; it is surrounded by small oases with rank vegetation ; water, warm and bitter, is collected from the *ghail* (a running stream) into large reservoirs and conducted to the fields by deep canals ; considerable cultivation of tobacco, millet, and some cotton.

Dir. W. by S., over sandy tract, to join road from Makalla a little short of Rashnid.

30 **Rashnid.**]

22 22 **Rashnid** ; see above, p. 295.

Dir. N. by W., then bearing NW.

2 m. *Wādi Ghāft* ; water, small palm-groves, slight herbage for camels.

7 m. *Sibah* ; fair supply of water, ' enough for scores of camels '.

Road soon enters *Wādi Huwari*, which is narrow and tortuous but contains water and grazing for a good number of camels ; track then leads up to plateau, and is so steep and stony that camel-riders usually dismount.

38 16 *Tahiyah*, small village with considerable cultivation ; alt. 900 ft.

Dir. NW., continuing to ascend *Wādi Huwari*, which here resembles a gorge.

3 m. *Jirwit*.

miles.
total. stages.

4 m. **Ghail**, village, near head of W. Huwari; a collection of stone huts, walled enclosures, and fields; alt. 2,000 ft. The *ghail* stream is used so largely for irrigation of date-palms, lucerne, grain, and other cultivation that the wādi-bed itself is waterless.

4 m. *Bat-ha* (Battih), village (alt. 2,600 ft.) situated at foot of scarp leading to main table-land (the '*Aqabah*'); very good water and much herbage for cattle.

Dir. N., bearing NW.; steep ascent, strewn with lumps of black basalt, to plateau (alt. 4,000 ft.), which stretches away to the horizon; the route runs across the plateau for about three days. Tanks, dug to collect rain-water, are now occasionally met with.

56 18 *Hāj Bāl Qabreīn*, summit of plateau, alt. 4,150 ft., forming the watershed of the district. The plateau slopes gently northward towards the main Wādi Hadhramaut and eastward to Wādi 'Adam. In this neighbourhood are the heads of several wādis which run almost parallel in the Hadhramaut; the descent into all these is a sudden and rapid drop of 1,000 ft. or more. Bent says: 'They look as if they had been cut out of the plateau, like slices out of a cake.' In the wādis themselves there is very little slope down to the main wādi.

4 m. *Kash*, at head of Wādi el-'*Aisār* (*Aisar*), along the r. bank of which the track runs for some distance.

9 m. *Arfa*; alt. 3,400 ft.

8 m. *Shariha*.

4 m. *Mūhah*, an abrupt descent of about 1,500 ft. to bed of Wādi el-'*Aisār*, by a difficult but well-engineered path; in the wādi the slope becomes gentle again; small villages and vegetation are passed. There is a longer, but easier, descent for camels, round by the head of the wādi.

86 30 **Khailah**, village, with cattle, palm-groves and gardens; alt. 2,015 ft.; head-quarters of Khailiki tribe.

miles.
total. stages.

Dir. N. by W., continuing down the narrow Wādi el-'Aisār.

2 m. *Subeikh*, village with tower; close by are the small hamlets of *Hardūf* and *Larsanah* (Larsmah).

1 m. *Wādi Dō'an* joins in l.; below junction, the wādi is generally known as *Wādi Kesr*, though some geographers consider *Wādi Dō'an* to extend to the town of Haurah, and even beyond.

[Hirsch's route entered *Wādi Dō'an* (or *Kesr*) just below its junction with *Wādi el-'Aisār*, a little above the town of *Sīf*. He describes the descent as 'a way down through a rain-worn ravine, full of stones, by a zigzag, difficult for men and more difficult for camels'.]

3 m. *Sīf*, on r. bank of wādi (Hirsch's map places it on l. bank); an 'Amūdi town of 1,000-2,000 inhab., with towers; it lies at a considerable height, among thick palm-groves and fields which extend on either side of the wādi and are much divided up by walls of mud and stone.

Dir. N., along the dry bed of wādi.

2 m. *Qaidūn*, to l., at the point where *Wādi Qaidūn* comes in l.; 'Amūdi shrine.

1 m. 'Adi (or 'Adīyah), to r.; about fifty houses protected by the fortress of *Ba Mahāris*, situated a little below the point where *Wādi Mish* comes in r.

5 m. *Hebīr*, to r.; little town with gardens and groves at entrance of *Wādi Hebīr*.

Track continues over very stony ground; it crosses and recrosses the wādi-bed at several points, passing mouths of several tributary wādis.

4 m. *Lajhar*, to l.; groves of palms and *dōm* trees and considerable cultivation.

1 m. *Hisn el-Mala*, to r., village commanded by fort.

2 m. *Sila'*, village to l., situated on jutting rock and commanded by two fairly large forts. The

miles.
total. stages.

road now runs for about 2 miles along a very sandy track to Hajarein.

- 109 23 **Hajarein**, squalid Ka'aiti town, built on lofty isolated rock in middle of wādi, and dominated by a castle ; pop. 1,500 ; alt. 1,780 ft. A steep slippery path leads to gate ; the houses of sun-dried brick and straw are unusually high and many have loopholes. The town is surrounded by a considerable area of cultivation ; it is a centre of trade and traffic, owing to its position midway between the coast and the interior. A Vice-Sultan governs here on behalf of the Ka'aiti family.

Dir. N. by W. ; the wādi is here peopled by unfriendly Nahad.

7 m. *Meshed* (or *Meshehed*), town of mud houses and several mosques, to r. ; deep well ; lime-kilns in neighbourhood and extensive ruins.

Dir. N., over flat valley bottom.

4 m. *Adab* (Adib), small village of about 25 poor houses and a well, situated a little way up *Wādi el-'Ain*, which here joins in r. ; almost opposite, *Beled Qabdein*, in extensive plantations.

Track now goes over dreary waste of sand, passing one or two small settlements, some of them protected by forts or watch-towers of the Ka'aiti tribe.

3 m. *Badrah*, small village to r. ; fertile spots are now again encountered, and several small villages or settlements are passed ; one of the latter, *Sideif*, possesses a fort.

- 127 18 **Haurah** (Hora), fairly clean and prosperous town, dominated by a castellated seven-storied house covering acres of ground ; surrounded by palm-groves ; pop. 2,000.

A little below Haurah, the main Wādi Hadhra-maut may be said to be entered, the valley broadening out and forming a great basin, about 8 miles in width.

Dir. N. by E., along barren sandy flats for about 11 miles.

miles.
total. stages.

- 2 m. *Naja*, to r. ; village and fort.
- 1 m. *Ghanimah*, to r. ; large village in plantations, protected by several 'küts'.
- 3 m. *Ajlāniyah*, considerable village to l., on rocky hillock ; herds of cattle, sheep, and goats, and much millet cultivation.
- 12 m. *Furudh*, camping-place on a small height, 1 m. W. of Hautah ; alt. 1,270 ft. ; groups of palm trees on edge of well-cultivated plain ; good wells, but water brackish.

Here the wādi suddenly narrows ; there is a fortress at the neck.

146 19 **HAUTAH (QATAN)**, town ; see I, p. 233 f.

Dir. NE. ; for some distance the road goes over a succession of sandy stretches with patches of scrub, and passes a white-domed tomb, near which is a roofed-in well.

8 m. *Kashāmir*, ruins.

158 12 **SHIBĀM**, town ; see I, p. 234 f.

Dir. NE. by E., at first through groves and gardens, intersected by water-courses ; then along a plain without vegetation, heavy going. In about an hour *Jebel Qabusah* is passed, with well at foot ; then track re-enters palm-groves and vegetation.

This portion of the main wādi, for several miles, is known locally as *Wādi Sirr*.

- 6 m. *Behārah*, to l., at foot of *Jebel Behārah* ; *Ghurfaḥ*, small town some little distance away from road to r. ; water-courses are frequent all along this section.

Road now traverses stony ground, winding between sand-hills, with a few palm-trees here and there.

- 6 m. *Teris*, small village to r. ; then a flat stretch, in some parts over muddy or marshy ground, into Seyyūn.

174 16 **SEYYŪN**, town ; see I, p. 235.

Dir. E. by N. ; the road leading out of the town is defended by a fortress, and a little farther on, where *Wādi Jezmah* comes in r., there is another fort

miles.
total stages.

1 m. *Qeren*, palm-groves; considerable cultivation, especially millet and lucerne; land much intersected by water-channels; then a short arid stretch.

1 m. *Hawwāra*, hamlet to r., in extensive palm-grove.

1½ m. *Mereimah*, village, commanded by fortress, among fertile fields and palm-groves.

Track at first passes between sand-hills, with uneven surface; then over soft sandy ground and along stony river-bed, till *Wādi Tāribah* comes in r.

9½ m. *Tāribah*, village, in extensive palm-groves and broad fields of millet and indigo; wells for drinking-water lie S. of town.

Dir. SE. at first; then E., through section of *Wādi Hadhramaut* known locally as *Wādi Masilah*; frequent running water; fortresses at intervals on both sides; road sometimes bordered by mud walls.

5 m. *Heid Qāsim*. The track from this point to Terim traverses an arid salt plain, but gardens and palm-groves reappear on nearing the town.

5 m. *Reida*, small village to r., near mouth of important tributary, *Wādi 'Adam* (perhaps the easiest and most used approach to *Wādi Hadhramaut*), which here comes in r.; vegetation and fertility increase as the town is approached.

203 29 **TERİM**, town; see I, p. 235 f.

[Proceeding beyond Terim along the *Wādi Hadhramaut*, the places and distances, according to Van den Berg, are as follows: 12 m. *Mishtah*; 2 m. *'Aināt*; 12 m. *Qāsim*; 4 m. *Khūn*; 12 m. *Ism*; 15 m. *Fughmah*; 10 m. *Qabr Hūd*.]

ROUTE 68

ALTERNATIVE ROUTE FROM SHIHEIR TO SHIBĀM

Authority : Bent, 1894, who traversed it in the reverse direction.

Direction : NNW. in general, but with some abrupt turnings.

Distance : Crow-fly, 99 miles ; road, 149 miles.

Character and Supplies : see p. 60.

miles.

total. stages.

SHIHEIR, port ; see I, p. 232. For the stage from Shiheir to Ghail Ba Wazir, see Route No. 67, p. 296.

20 20 **Ghail Ba Wazir**, village ; see p. 296.

Dir. NE., passing through several oases.

3 m. *Bu Bakr*, village.

8 m. *Jamblah* (Gambala), village and palm-groves ; abundant horse fodder.

Dir. NW. up steep ascent of 2,000 ft., which sometimes necessitates dismounting ; ground barren and stony ; then another steep ascent of 1,000 ft., which camels have to make by a roundabout way ; the track then takes a winding course over bare undulating country.

10 m. Cross narrow pass (alt. 4,300 ft.), near shrine of *Sheikhah* ; descent by very winding path.

10 m. *Disbah* (alt. 2,900 ft.) ; water. The track crosses undulating ground, passing many tanks.

10 m. *Bir Baukban*, well ; brackish water.

Road enters a narrow valley, wooded with palms ; it crosses some miles of highlands, and then drops gradually into a wādi which develops into *Wādi 'Adam*, the chief approach to Wādi Hadhramaut.

2 m. *Laknah*.

3 m. *Hadhbah*, a small fort.

70 50 **Sufeilah**, village with excellent water and palm-groves ; alt. 3,150 ft.

Dir. WNW., continuing down wādi.

miles.
total. stages.

- 7 m. *Rahbah*, village, with tank of bad water.
The wādi here, in places, is much shut in by overhanging cliffs.
- 10 m. *Sahūt*. Track bears W.
- 91 21 *Nihār*, village.
Dir. N. by E., continuing down wādi, which narrows to 300 yards at one point, where there is a tower ; there are a few trees here and there.
- 7½ m. *Kuna*, village.
- 2½ m. *Bir Bin Abudein*, village ; two wells, good water.
- 2 m. *Birk*.
- 6 m. *Ghazz*, well. *Wādi Sanghur* comes in r. Below this point, numerous villages are passed, each consisting of a group of hovels round a tower ; many flocks. Road continues along stony bed of wādi.
- 115 24 *Sāh*, village.
Dir. N. for about 5 miles.
- 1 m. Old fortress, on spur jutting out from cliff ; the wādi is here very fruitful and contains a stream (*Ghail 'Umr*) and miles of palm-groves.
- 4 m. Wādi 'Adam is left ; alt. 1,450 ft. Track turns abruptly W. by S. up side valley, which gradually narrows to a mere ravine.
- 3 m. Very steep ascent begins, extremely difficult for camels ; then track, turning N., winds across tableland, alt. 3,000 ft.
- 12 m. *Farash*, a few rough shelters ; water ; scanty grazing.
- Dir. N. by W., descending sharply into *Wādi Bin 'Ali*, a tributary of the main Hadhramaut Wādi, some 1,500 ft. below tableland ; the track leads down the wādi.
- 4 m. *Masra*.
- 1 m. *Jabra*,
- 3 m. *Bahzeil*, ruins, to l
- 149 34 **SHIBĀM**, town ; see I, p. 234 f.

ROUTE 69

MAKALLA—SHIHEIR—DHOĀR—LASHKHARAH

Authorities: Red Sea Pilot (Makalla to Lashkharah); Persian Gulf Gazetteer (Dhofār to Lashkharah). For certain sections between Makalla and Murbāt, Bent, 1893-5, compared with Indian Govt. Road Book.

Direction: Generally NE. by E.

Distance: Crow-fly, 842 miles; road, 993 miles.

Character and Supplies: see p. 60 f.

miles.

total. stages.

MAKALLA, town; see I, p. 232 f.

Dir. ENE. over sand, skirting round *Ruweini Bay*.

1 m. *Bandar Ruweini*, where there is shelter for native craft during the SW. monsoons.

2½ m. *Rukub*, village with large mosque.

3½ m. The route passes within 1½ m. of the inland village of *Buweish*, situated in a valley with fairly abundant water and some date-groves.

20 20 *Shihr*, small village and an old fort on the coast. About 5 m. inland is the large village of *Sūq el-Basir*, said to have 4,500 (?) inhabitants; good water; tobacco and vegetable cultivation.

Dir. ENE. along the low sandy shore.

4½ m. *Jebel Dhaba*.

4 m. The route here passes within ¾ m. of *Zaghfah* village (see Route No. 67, p. 296).

2½ m. *Marir*, deserted village; water.

35 15 **SHIHEIR**, port; see I, p. 232.

Dir. almost due E. at first, then ENE. along the shore.

1 m. 'Arfa river-mouth crossed; water. The route then goes along the shore for some little distance; after making a detour inland for a couple of miles, to cross the estuary of *Wādi Gharid*, it returns to the coast again. For about a mile before *Hāmi* the going is very bad, along low cliffs strewn with broken shells.

51 16 *Hāmi*, small village at the foot of some low volcanic spurs; date and coco-nut groves; maize and

miles.
total. stages.

jowari cultivation ; water-supply from a sulphurous spring, too hot to keep the hands in.

Dir. NE. at first, close to the shore along cliffs from 20 to 30 ft. high ; then inland, passing through a jumble of low volcanic hills.

9 m. *Dis*, a populous oasis ; some old forts ; cultivation of sugar-cane in the neighbourhood. Track then leads across stony desert.

66 15 *Ghaidhah* (1), hamlet with a few huts ; good water.

Dir. SE., at first over firm ground and then over heavy sand, returning to the coast at *Dhafghān*.

6 m. *Dhafghān*, small village in a gap in the cliffs.

Dir. E., afterwards bearing generally ENE. along the coast ; basalt rocks occur here and there in this section of the route, and the track runs a little inland now and then to avoid the rough ground ; several water-courses are crossed.

5 m. *Bāghashwah*, hamlet near a headland (300 ft. high) of the same name ; water collects in pools after rain ; several springs of good water in the neighbourhood, and some cultivation. *Jebel Hamūm* is visible about 5 m. inland.

13 m. *Qarn*, a small scattered hamlet.

1½ m. Track passes a date grove and a square fort in ruins.

92 26 *Qusei'ir*, small fishing village, walled on the land side, and consisting of a few stone buildings, a castle, and huts ; there are four detached towers on the sea side ; a few fishing boats ; anchorage under the shelter of a small natural breakwater, boats lying on either side according to the direction of the wind.

Dir. NE. along the top of low cliffs, and over alternating tracks of black basalt and soft sand.

4½ m. *Harrah*, a hamlet with a round tower.

2½ m. *Sarār*, a few huts of mud and bamboo, and a few palms ; a cemetery here should be passed on the windward side.

2 m. Cross a water-course.

miles.
total. stages.

- 3 m. *Handuwāt*, small village ; two miles inland, from a point $\frac{1}{2}$ m. on, is *Hisn el-Kathiri*.
- 2 m. *Wādi Bidrah* is crossed.
- 107 15 *Reidah*, important village, about $\frac{3}{4}$ m. inland ; estimated pop. 700 ; hot springs and some cultivation ; several boats.
- Dir. continues NE. at first, then bears E. by N. along the coast.
- 4 m. *Hasanah*, village.
- 2 m. *Rakhmīt*, where a torrent-bed reaches the shore.
- 8 m. *Museina'ah*, an ancient site, with ruins ; the country round is marshy and contains belts of mangroves.
- For the remainder of the stage (39 m.) the route runs in almost a straight line along a low desolate coast, at the foot of a range of high mountains.
- 11 m. Mouth of *Wādi Shakhāwi* is crossed.
- $2\frac{1}{2}$ m. *Tanūn*, small village.
- 13 m. *Sharkhāt*, village, practically deserted.
- $5\frac{1}{2}$ m. Cross the mouth of *Wādi Museilah*, which makes a very conspicuous gap in the coastal range ; a small ruined fort stands on each side of this wādi, which leads up to the main *Wādi Hadhramaut*.
- 3 m. *Darfūt*, small village.
- 160 53 **Seihūt**, small port ; see I, p. 230. Good and abundant water and plentiful supplies.
- Dir. ENE. over low sandhills. The route now lies in Mahrah country.
- $9\frac{1}{2}$ m. *Ras 'Iqāb*, a few fishermen's huts ; barren and uncultivated coast.
- $3\frac{1}{2}$ m. *Ras Rakhweīt*.
- 2 m. *Ras el-Kafīr*.
- 179 19 *'Atāb*, village with three mosques, about 1 m. from the shore ; pop. about 400 ; good water from wells E. of the village ; date groves 1 m. to W.
- Dir. ENE. at first, then NE. along a low, sandy, barren, and undulating coast.
- 10 m. Two sugar-loaf shaped peaks are passed.

miles.
total. stages.

- 2 m. *Līban*, village.
- 4 m. *Akhūd*, village ; good anchorage in *Bandar Lask*, the westernmost portion of *Qishn Bay*.
- 197 18 **Qishn**, large straggling village, about $\frac{1}{4}$ m. inland from the head of *Qishn Bay* ; good water from wells westward of the town ; fish plentiful, and good ; small imports of jowari, rice, dates, coffee and sugar ; see I, p. 230.
- Dir. generally ENE., along the shore of *Qishn Bay*.
- 3 m. *Sūq*, small village near a salt-water lake ; some palm trees.
- 2 m. *Hafāt*, small fishing village. Thence across the promontory of *Ras Darjah*.
- 9½ m. Route passes between *Khōr Maghshi* and *Jebel Hadīm*, and thence along a low sandy coast.
- 218½ 21½ **Sagr**, straggling village in a date-grove near the beach ; pop. 500–600 ; good water ; some grain grown.
- Dir. N. of E., continuing along the low sandy coast and through country which is bare, except where there are stunted bushes and patches of cultivation near villages.
- 3½ m. Village with fortified house.
- 7 m. *Haswein*, village of some 500 inhabitants ; good water.
- 236 17½ **Kheiseib**, village of about 150 inhabitants near a valley. 3½ hrs. up from the mouth of this valley is *Wādi*, with a pop. of 600 and three or four forts, a place of considerable trade of which *Kheiseib* is the port ; 1½ m. inland of *Kheiseib* are the villages of *Dhakrabeit* and *Kadīfūt*, each with a pop. of about 300, and several wells of good water ; salt is exported from this district.
- Dir. N., ascending for 2 m. over the promontory of *Fartak* (alt. 1,900 ft.), the track afterwards going along a precipitous escarpment.
- 12 m. *Ras Fintās*. The route now descends the escarpment.
- 1 m. *Nishtūn*, village in a sandy bight.
- 2 m. *Khōr Khalfūt*, up which boats of from 30 to 40 tons can be hauled during the SW. monsoon.

miles.
total. stages.

The track then goes along the sandy beach
of *Qamar Bay*.

- 258 22 *Tabūt*, hamlet about 1 m. from the shore.
Dir. gradually bears E. of N., along a low-lying coastal plain.
2 m. Pass a small hill some 3 m. from the shore.
2 m. *Heirūt*, hamlet, about 1 m. from the shore.
14 m. *Harā'iq*, hamlet, about the same distance from the shore.
- 278 20 *Ghaidhah* (2), the largest village on *Qamar Bay*, 1 m. from the shore; good water.
Dir. gradually bears NE.
7 m. *Qabr Qailūl*, a tomb close to the sea.
3½ m. 'Irūb, village.
- 301 23 *Jauhari*, village 3 m. from the beach, consisting of a few huts around a white tomb.
Dir. E. by N. across the narrow plain between the 'Atūb range and *Qamar Bay*, traversing occasional patches of soft sand.
10½ m. *Fatk*; here mountains approach close to the sea.
2½ m. *Wādi Shaghwūt*, between the 'Atūb and *Fatk* ranges, is crossed; near its mouth is a small hamlet with some cultivation.
- 327 26 *Damqūt*, small seaport at the eastern extremity of *Qamar Bay*; it lies in an irregular plain about a mile square, bounded on all the land sides by almost inaccessible mountains; pop. 400; 90 mud-houses. Shark-fishing and a small export trade in *ghi*, hides, and gum are carried on. The place marks the eastern limit of the *Mahrah* tribe.
Dir. ENE., along the coast known as *Seilikōt*, the ground over which the route passes descending from the *Jebel Qamar* range to the shore in broad shelves covered with grass and trees.
10½ m. *Judāb*, village built under some rocks.
2½ m. *Hauf*, village and tower.
5½ m. *Dharbah 'Ali*, hamlet near headland of the same name.
11½ m. *Thalfōt*, date-grove.
6 m. *Kharifōt*, village; see I, p. 281.
The route here enters *Dhofār* territory.

miles.

total. stages.

367 40 *Rakhyūt (Reikhūt)*, village ; see I, p. 281.

Dir. E. at first, over a mountainous ridge with an abrupt scarp towards the sea, then bearing ENE.

4 m. *Safqōt*, small hamlet, situated in the deep ravine *Kheisah Bin 'Othmān*. Thence the route runs along cliffs which for some 8 m. rise from the sea like a wall.

9 m. Cross a tableland, which rises to an altitude of 3,380 ft., and from which *Ras Sājar* juts out ; then cross the mouth of the *Kheis Bin 'Umr* valley, in which are a few lime and tamarind trees. The route then leads round the rocky and irregular *Ghubbah Feizeyyah* coast.

27 m. *Ras el-Himār*, a rocky bluff. The route runs along the foot of a mountain range which here approaches the sandy shore.

412 45 *Risūt*, trading post ; see I, p. 280 f.

Dir. N. for a short distance, then E. by N. over the *Dhofār* plain.

4 m. *'Auqad*, village, consisting of two separate quarters $\frac{1}{2}$ m. apart ; water-supply from wells at 12–18 ft. ; some grain, cattle, sheep, and goats obtainable.

2 m. Cross a stream, which rises from a fresh-water spring.

420 8 *Salālah*, capital of *Dhofār* ; see I, p. 280.

[At this point the land route from Adam, in Oman, comes in ; see below, p. 312.]

$1\frac{1}{2}$ m. *El-Hisn*, fort ; see I, p. 280.

$\frac{1}{2}$ m. *Hāfah*, village ; see I, p. 280.

Dir. E. slightly by N., through cotton fields and coconut groves for about 1 m. ; then, for the rest of the stage, along a coastal plain crossing several streams of clear but brackish water.

1 m. *Bilād*, ruined site.

3 m. *Dahārīz*, village ; see I, p. 280.

2 m. *Rizāt*, garrisoned fort and about 10 huts ; water from a running stream ; some cultivation of sugar-cane, jowari, fruit, and vegetables.

miles.

total. stages.

4 m. *Hamrān*, village about 2 m. from the sea ; a spring and water-course, and cultivation ; near the sea in this district is a dense growth of mangroves.

441 21 *Tāqa*, hamlet, consisting of a score of huts and one stone building ; two fresh-water khōrs ; westward of the village are groves of coco-nut palms and some cultivated ground.

[A track leads off almost due north and joins the Salālah-Adam inland route ; see below, p. 312.]

Dir. about E., gradually bearing SE. when nearing end of stage.

2 m. *Khōr Rōri*, a remarkable inlet running about 2 m. inland, $\frac{1}{4}$ m. broad at the mouth and narrowing to a stream at its head ; the Khōr is separated from the sea by a narrow ridge of sand.

The route now leads along the foot of the *Samhān* hills, crossing many water-courses.

19 m. Cross *Wādī Fulk*.

464 23 **Murbāt**, village ; see I, p. 280.

Dir. E., crossing a dark granite plain, then gradually bearing N. along the coast.

20 m. *Sadah*, a few huts and some caves ; about 600 cattle and perhaps 1,000 sheep and goats.

24 m. *Ras Nūs*, with *Bandar Nūs*, a village of some 20 circular huts of stone ; water from a good spring ; small anchorage on the east side of the village.

10 m. *Hāsik*, hamlet at the mouth of a thickly wooded valley ; brackish water.

521 57 *Wādī Reikhūt*, with a spring of fresh water and a lake of brackish water ; fuel and grazing obtainable.

Dir. NNE. for about 25 m., then gradually bearing round to E. by N. over a coastal tableland.

606 85 *Ras Qarwā'o*, headland, almost cut off from the mainland by a lake, at the head of which the water is fresh.

Dir. NW., then NNE., along coast with precipitous cliffs.

2 $\frac{1}{2}$ m. *Ras Shurbatāt*, a precipitous bluff.

19 $\frac{1}{2}$ m. *Ras Sauqirah*, headland, 600 ft. above sea-

miles.

total. stages.

level, from which the route descends, afterwards winding around belts of mangrove bushes.

- 656 50 **Jāzir**, a much frequented camping-ground; slightly brackish water obtainable by digging in the ground near the shore. [This is the only point at which the land route from Oman (see Route No. 70, pp. 313 ff.) touches the coast.]

Dir. NNE., then bearing E. by N., generally between sand-hills and the lower sandy shore of Sauqirah Bay, where there is grazing in the winter months.

- 739 83 *Ras Madrakah*, headland, 450 ft. high, 1 m. N. of which there is good anchorage during the SW. monsoon.

Dir. generally N. by W.

2½ m. Well of good water, but slightly brackish.

3½ m. *Ras ed-Dila*, fishing hamlet; water. The route now runs for some miles between sand-hills and a low sandy shore; it then ascends to and runs along a tableland bordered by perpendicular cliffs, from 230 to 480 ft. in height.

5½ m. *Ras Markaz*, 480 ft. above sea-level.

33½ m. Descent from tableland towards coast with mangrove swamps, the track turning somewhat inland to avoid the latter.

15 m. *Ras Sireir*. The route leads over low sand-hills.

- 802 63 *Ras Sidarah*; hamlet and date-grove.

Dir. N. by E., ascending to a tableland similar to that in the last stage, and then descending to Ras Sarāb.

- 822 20 *Ras Sarāb*, a low sandy point, with fishing village of the same name near it; fairly good water at village.

Dir. generally NE., leading among low sand-hills.

32 m. The route begins to round the head of the bay *Ghubbah Hashish*.

- 863 41 **Mahōt**, village on island accessible at low tide; see I, p. 278. [For the camel caravan-route from Adam in Oman to Mahōt, see Route No. 70, p. 318.]

Dir. E., then bearing NE., across the *Barr el-Hikmān* peninsula, low-lying, sandy, and dotted with bush and tussocks of grass.

miles.

total. stages.

913 50 *Ras Sheiblah*, a low sandy point, where the route again strikes the coast; about 1 m. inland is *Sheiblah* village, 200 huts and considerable live-stock.

Dir. NE., over cliffs from 30–70 ft. high.

15 m. *Ghalāt*, village not far from the track, which here descends to a long stretch of low, sandy, and bare ground, known as the *Batein*.

10 m. *Sharkh*, hamlet of 20 huts; some live-stock and a few fishing-boats.

962 49 *Ras Jibsh*, small sandy point, with a hill about 100 ft. high above it, on which are the remains of an old tower; on the SW. slope of the hill is a village of about 60 inhabitants; on the N. side of the point is a small bay affording good landing in southerly winds, but exposed to those from the north-east; some distance from *Ras Jibsh* is *Quran*, a small hamlet owning a little live-stock and three fishing-boats.

Dir. NNE. across a tract of low sand-hills.

993 31 *Lashkharah*, large fishing-village and fort; some 200 houses, a few of stone but mostly huts, inhabited by the Ja'āfirah section of the Beni Bu 'Ali, owning about 50 fishing-boats and one large *sambūk*. The place is the port for all the Ghāfiri tribes subject to the Tamimah of the Beni Bu 'Ali. [For the route from Kāmil to Lashkharah, see Route No. 70, p. 317.]

[An inland route connects Salālah in Dhofār (see above, p. 309) with Adam in Oman Proper (distance: crow-fly, 439 m.; road, about 517 m.) It leaves the coastal route at *Hāfah* (m. 422 of main route, see p. 309), and leads up *Wādi Jarziz*, traverses the district called *Qatan* behind *Jebel Samhān*, approaches the sea at *Jāzir* (see above, p. 311), and then bears direct for *Adam*, passing on the way through a district called *Dhahr*. The route is an arduous one and the journey occupies about a month. In some parts water is only met with at intervals of two marches. About 55 m. from Salālah a track joins in from *Tāqa* on the coast; see above, p. 310.]

G. SOUTH-EASTERN ROUTES

ROUTE 70

SŪR—IBRA—MANAH—NIZWA

WITH BRANCH ROUTES TO LASHKHARAH AND ADAM

Authorities: Wellsted, 1836, and Miles, 1885, compared with Indian Government Road-book, and native information in the Persian Gulf Gazetteer. For the branch route Kāmil-Lashkharah, Cole, 1845, and Wellsted (for first half of route), compared with Indian Govt. Road-book.

General Direction: SW. by S. to Kāmil, WNW. to Badiyah, NW. to Ibra, WNW. to Samad, SW. to Kuthrah, and W. to Manah; thence (a) NNW. to Nizwa, and (b) SSW. to Adam. The branch route, Kāmil-Lashkharah, runs S. by E., then SE. by E.

Distance: Crow-fly, 136 miles; road, 191 miles.

Character and Supplies: see p. 61.

miles.

total. stages.

SŪR, seaport in Eastern Hajar; see I, pp. 261 ff.

Dir. SW. by S. Leave by road along shore of creek, which crosses low ridge running NW. to SE. and enters *Wādi Fuleij* (or *Faleij*). Bed of wādi, at first a shallow valley, is formed by rounded masses of limestone and is dotted with stunted acacia bushes.

3 m. Wādi Fuleij here enters the hills; its actual bed is 200–300 yds. across, with banks 20–30 ft. high. Below the oasis of Fuleij it contains a running stream which has frequently to be crossed in ascending the valley.

1 m. On W. the main wādi is joined by ravine with conspicuous cliffs of yellow sandstone; two or three m. up ravine is Mislāq, a village of wood-cutters and carriers, with some camels and live-stock. Route continues up main wādi.

miles.

total stages.

- 2 m. Leave bed of wādi and ascend by zigzag path to pass of *Bāb er-Rafsah*, a ruined tower and square gate-house, through which all caravans have to pass and pay toll to the Mashārifah tribe. On l. bank of wādi, opposite tower, are cave-dwellings forming the tribe's frontier village in direction of Sūr. Return to bed of stream.
- 5 m. *Fuleij Oasis*, in bed of wādi, below its junction with *Wādi Fisā'o*, its principal tributary which rises on the E. side in Jebel Khamīs; there is good and ample water, and abundant camel-grazing for about a mile. Continue up Wādi Fuleij.
- 8 m. Leave wādi and enter plain which extends to district of Ja'lān.
- 11 m. *Humeidah*, walled hamlet in Ja'lān; about fifteen mud and date-branch huts of the Hishm tribe, small fort and some date-plantations. Water from running streams; cultivation both within and without walls.
- 32 32 **Kāmil**, village of about 200 houses, with bastioned walls on N. and W. sides, and date-groves to S. and E.; bazaar of some 15 shops. Water-supply from streams is abundant and is employed for irrigation; cultivation of lucerne. [For the branch route to Lashkharah see below, p. 317.]
- Dir. SW. by S., over plain; the soil is alternately very loose drift sand and a whitish indurated clay, covered with acacia bushes. After a short distance enter *Wādi el-Hā'imah*.
- Dir. WNW., up Wādi el-Hā'imah, a shallow line of drainage traversing Sharqīyah, known also in its upper course as Wādi Ibra; it contains stunted bushes here and there.
- 8 m. (2½ hrs.). Some sand-dunes about 50 ft. in height, blown in from the desert on the S.; the spread of the sand has been checked by growths of desert bushes which have caused the dunes. 12 m. (3 hrs.) from the dunes to Ruksat.

- miles.
total. stages.
- 52 20 *Ruksat*, where there is water.
Dir. WNW. up Wādi el-Hā'imah. From here onward the arid country is furrowed by numerous small ravines which feed the main wādi ; some small hamlets are passed.
- 75 23 **Badiyah**, plain several miles in extent containing group of thirteen small villages, separated by sandy and barren ground, each with a fort and date - plantation watered by its own spring ; total pop. 6,500. The principal village is *Wāsil* (known also as *Sūq Badiyah*), where there is a central bazaar. Badiyah produces the most valuable dates in Oman (of the 'mibsalī' variety), which are exported to Bombay via Sūr. All the villages possess camels, donkeys, cattle, sheep, and goats.
Dir. NW. up Wādi el-Hā'imah, through an open sandy plain.
- 4 m. *Qābil*, walled village of some 50 houses, inhabited by the Hirth tribe (of the Hināwi faction) ; several forts and some date-groves.
- 3 m. *Dariz* (or *Dareizah*), small village and oasis of date-palms.
- 2 m. **Mudheirib**, village of about 300 houses and date-groves, inhabited by the Hirth tribe.
- 1½ m. Some low limestone hills, about 150 ft. in height, intersect the plain.
- 96 21 **IBRA** (or **BIRA**), largest town of Sharqīyah ; see I, p. 276.
Dir. WNW. up Wādi el-Hā'imah, through a country consisting of valleys and plains sprinkled with grassy knolls and scrub jungle ; the small limestone hills are devoid of vegetation.
- 15 m. A wooded tract, with acacia trees of great size.
- 9 m. *Wādi Athali*, wells with good water.
- 132 36 **Samad**, extensive oasis and town, on l. bank of *Wādi Samad*, which rises in the Eastern Hajar ; pop. 2,500 ; see I, p. 275. In the town is a large fort, and on several of the hills round are watch-towers.
Dir. SW. down Wādi Samad.
- 2 m. *Maghsar*, village of the Habūs tribe, with fort and date-plantations, on l. bank of Wādi Samad.

miles.

total. stages.

- 4 m. At about this point (2 hrs. from Samad) descend some 200 ft. down narrow ravine of pass of *Urif*.
- 3 m. *Gazah*, town (3 hrs. from Samad).
- Dir. SSW.
- 5 m. *Shari'at Āl Bu Sa'id*, village of about 100 houses with date-groves.
- 147 15 *Kuthrah*, village of about 50 houses with date-palms ; abundance of water in neighbourhood.
- Dir. W.
- 2 m. **Rūdhah**, village of about 300 houses with date-groves.
- 2 m. *Alu*, village with date-palms.
- 5 m. *Ukahil*, village (2 hrs. 50 m. from Kuthrah).
- 5 m. *Tulhat*, walled town with extensive date-groves, watered by large stream ; under hill with two small forts.
- 6 m. Stretch of desert country (2 hrs. from Tulhat).
- 2 m. *Mahyūl*, village of about 50 houses, with two forts on S. side, and date-groves (1 hr. from Manah).
- 172 25 **MANAH**, important town and oasis of Oman Proper, pop. 4,500 ; see I, p. 274 f.
- Dir. NNW., at first through extensive cultivation, then over country that is level, bare and stony, sparsely inhabited and cultivated, though not devoid of desert vegetation.
- 6 m. *Karsha*, hamlet of some 20 houses of the Beni Riyām, with date-palms.
- 4 m. Turn N. by E. up *Wādi Kalbu*.
- 4 m. *Raddah*, hamlet of 20 houses of the Āl Bu Sa'id, with date-palms, on l. bank of Wādi Kalbu ; alt. 1,800 ft.
- 2 m. **Farq**, large village of about 150 houses, on l. bank of Wādi Kalbu ; considerable date-plantations and much wheat and indigo. The inhabitants are mainly of the Beni 'Auf and 'Abriyīn tribes.
- 191 19 **NIZWA**, most central town of Oman Proper, pop. 6,000 ; see I, p. 272 f.

The following is a *Branch Route* from Kāmil to Lashkharah (39 m.):

miles.

total. stages.

Kāmil, village ; see above, p. 314.

Dir. S. by E. over country which as far as Wāfi is well watered and cultivated.

- 4 m. **Wāfi** (also called **Beled Beni Rāsib**), walled village of about 300 houses, mostly of mud and gypsum-stucco ; inhabited exclusively by the Beni Rāsib and the only village of that tribe. Abundant water-supply from fine spring ; considerable date-plantations and other cultivation.

Continue in same direction over plain covered with acacia bushes ; the soil consists alternately of very loose drift sand and whitish indurated clay.

- 5 m. **Beled Beni Bu Hasan**, straggling town, the principal settlement of the Beni Bu Hasan tribe, Hināwi by politics ; pop. about 4,000. The houses, mostly of mud, are scattered over an area about 5 m. from N. to S. and 1 m. broad ; bazaar of about 40 shops. On N. side a wall and two forts, and a third fort, Hisn el-Mashā'ikh, to SE. ; the springs about 1 m. to W. are defended by towers. Drinking-water is from wells 24–30 ft. deep, the springs being employed for irrigation ; cultivation of lucerne and maize.

Dir. SE. by E. over plain with scattered acacia trees.

- 7 m. **Beled Beni Bu 'Ali**, large village with date-plantations ; pop. 3,000. Inhabited exclusively by the Beni Bu 'Ali tribe ; the principal Ghāfiri settlement in Ja'lān and often at feud with its Hināwi rival, Beled Beni Bu Hasan.

- 7 m. *Jahlan*. On approaching the coast the flat, firm plain changes to broken and sandy ground.

- 16 m. **Lashkharah**, village and fort ; see above, p. 312.

The following is a *Branch Route* from Manah (see above, p. 316) to Adam (25 m.) :

miles.

total stages.

MANAH, town; see I, p. 274 f.

Dir. SSW. over plain gradually declining towards the S., and sprinkled with dwarfed acacias, brushwood, and desert herbage.

Cross *Wādi Matayyin*, a tributary of the *Wādi Halfein*.

5 m. 'Izz, walled village with date-groves; 20 permanent huts of the Beni Hadharmi and Jannabah tribes, increased to about 50 dwellings in the date-season.

3 m. Cross *Wādi Kalbu*, containing a fine stream in winter.

5 m. *Bir el-Humeid* (or *Hameid*), well in desert, surrounded by thick vegetation; said to be half-way between Manah and Adam. Continue SSW. over undulating plain.

6 m. Short range of hills, the route passing through a dip between *Jebel Sulakh* on the W. and *Jebel Madhmār* (or *J. Mushmar*) on the E., which rise, destitute of vegetation, to about 800 ft. Here is a cluster of hot springs, from which irrigation conduits are led to Adam, visible from this point to the S.

6 m. **ADAM**, the southernmost town and oasis of the Oman Sultanate, pop. 3,000; see I, p. 275.

[There is a camel caravan-route from Adam to **Mahōt** on the south-eastern coast of Oman (see I, p. 278, and cf. Route No. 69, p. 311; crow-fly about 150 m.; general direction S. by W. Shortly after leaving Adam the route enters *Wādi Kalbu*, a tributary of *Wādi Halfein*, which is then followed to within a short distance of the coast. The route is well supplied with herbage and seldom without water; there are said to be 30 recognized halting-places, and caravans take 8 to 10 days. It has never been traversed by a European.]

ROUTE 71

MUSCAT—SEMĀ'IL—NIZWA—'IBRI—DHANK—BIREIMI

Authorities: Wellsted, 1836; Miles, 1876 and 1885; Cox, 1902; with native information.

General Direction: SW.; then W.; then NW.

Distance: Crow-fly, 188 miles; road, 294 miles.

Character and Supplies: see p. 62.

miles.

total. stages.

MUSCAT, town; see I, pp. 255 ff.

[There are two land routes from Muscat to Matrah, one by a steep and rugged pass through Riyām to Mateirah, on the sea a little E. of Matrah, the other by a still more difficult pass direct to Mateirah; but neither of these paths is practicable for laden animals. Everything is carried from Muscat to Matrah by sea in large canoes, which ply regularly and afford the general mode of transit.]

2 m. **MATRAH**, town; see I, p. 257 f. Leave Matrah by the *Bāb el-Kebīr* in SW. corner of town.

Dir. SSW. by road over pass of *Kharāshīf*, a natural opening in the volcanic hills on the landward side of Matrah.

1½ m. *Beit el-Felej*, village of about thirty houses with date-plantations, in a small wādi of the same name; fortified residence of the Sultan of Oman, who resides here in the hot weather.

Continue SSW. across *Seih el-Harmal*, a small plain or widening of Wādi Beit el-Felej, towards Ruwi, which lies a short distance beyond its l. bank.

1½ m. *Ruwi*, village of about fifty mud houses and huts, in small wādi of its own, a r. bank tributary of Wādi 'Adai; good water from wells at 50 ft.; date-palms and extensive

miles.

total. stages.

market gardens supplying Matrah and Muscat. The place is of military importance, as all routes from Matrah to the interior diverge here.

1 m. Cross *Wādi 'Adai*.

Dir. WSW. across hilly ground.

4 m. *Wādi Bōshar*, large plain or drainage basin, extending along coast to *Wādi Semā'il*.

Continue WSW. across *Wādi Bōshar*, passing villages with date-plantations.

Cross spur of Western Hajar to *Wādi Semā'il*, which is entered at Fanjah.

32 32 **Fanjah**, town of about 450 houses, with small bazaar and fort, on l. bank of *Wādi Semā'il*; date-groves and cultivation extend along *wādi* for nearly three miles; population 3,000. There are two hot springs near the town.

[An *Alternative Route* from Muscat to Fanjah (46 m.) runs by the coast from Muscat to *Sīb* (29 m.), and from *Sīb* to Fanjah (17 m.), as follows :

MUSCAT, see above, p. 319.

[For coast road to *Sīb*, see Route No. 73, p. 329 f.]

29 m. **Sīb**, capital of vilayet; see I, p. 254.

Leave through date-groves and gardens on S. side of town.

Dir. SSW., across coastal plain, partly sandy, partly stony, and uncultivated. After crossing a small rise, enter *Wādi Khōdh* (the name of *Wādi Semā'il* in its lower course). Ascend *wādi* through date-groves.

7 m. At about this point track leaves *wādi* and returns, after traversing barren valley.

2 m. **Khōdh**, village of about 200 houses and fort, on r. bank of *Wādi Semā'il*, known above this point as *Wādi Fanjah*.

6 m. *Tasāwīr*, hamlet of about 25 houses on r. bank.

2 m. **Fanjah**, on l. bank (17 m. from *Sīb*).]

miles.

total. stages.

32 32 **Fanjah**, town ; see above.Continue up Wādi Semā'il, known above this point as
Wādi Bidbid.

- 1 m. *Sharu*, village of about 60 houses on l. bank.
Wādi Dhaba'ūn, joins l. bank of wādi, just below 'Amqāt.
- 1 m. 'Amqāt, village of about 40 houses on r. bank.
- $\frac{1}{2}$ m. *Mileyyinah*, hamlet of about 20 houses on r. bank.
Wādi Mansah, joins r. bank of wādi.
- 1 m. *Qurta*, village of about 50 houses on r. bank.
- $\frac{3}{4}$ m. *Mizra'*, village of about 30 houses and watch-tower on l. bank.
- $\frac{1}{4}$ m. *Bidbid*, village of about 40 houses on l. bank ; fort with garrison of 20 askaris of Sultan of Oman. The Wādi Semā'il is here broad, barren, and sandy.
Wādi Beni Jābir joins l. bank of Wādi Semā'il.
- 3 m. *Miltiqa*, village of about 40 houses on l. bank.
- $1\frac{1}{2}$ m. **Sartir**, village of about 500 houses on r. bank ; extensive palm-groves, bearing 'fard' dates. The hills on each side of valley here contract.
- 1 m. A wādi joins r. bank of Wādi Semā'il.
- $1\frac{1}{2}$ m. *Wādi el-'Aqq* joins r. bank.
- 2 m. *Hassās*, hamlet of about 25 houses on r. bank.
- $1\frac{1}{2}$ m. *Hillah* (or *Khūbār*) *Beni Harrās*, village of about 100 houses on r. bank ; spring, known as *Furdhah Hassās*, a short distance below village.
- 1 m. *Hillat* (or *Khūbār*) *el-Majālībah*, village of about 30 houses on r. bank.
- 1 m. *Fāru*, village of about 40 houses on r. bank.
- 1 m. *Ghubrah*, village of about 50 houses on r. bank. The valley here becomes very narrow.
- $\frac{1}{2}$ m. *Hijrat es-Sufa*, village of about 100 houses on r. bank. In this section of the wādi, up to and beyond Hisn Semā'il, there is a cluster of small villages and hamlets, on both banks.
- 1 m. *Jebeiliyāt*, village of about 60 houses on l. bank ; opposite, on r. bank, is *Bistān*, a hamlet

miles.
total. stages.

of about 15 houses. The Semā'il date-groves begin; extensive cultivation, with abundance of water from open conduits. There are watch-towers on the hills over the valley, here about $\frac{1}{4}$ m. wide.

- 53 21 **Hisn Semā'il**, capital of vilayet of Sultan of Oman, with strong fort; see I, p. 259 f.

Continue up wādi, in general direction SW. by W., passing numerous villages and hamlets and much cultivation.

- $3\frac{1}{2}$ m. *Qurein*, village of about 100 houses on r. bank. *Seih*, a desert plain in the valley is traversed.
4 m. *Darwāzah*, wall across valley with towers and a gate through which the track passes; it is permanently held by a tribal garrison of the Beni Ruwāhah (Hināwi by politics, Ibadhis by religion).

The Wādi Semā'il from this point to its head is known as the *Wādi Beni Ruwāhah*.

- $\frac{1}{2}$ m. *Wabāl*, village on r. bank, near a low white hill conspicuous from the road; about 50 houses of the Beni Ruwāhah. Watch-tower on the hill, which is skirted by dense grove of date-palms.

The wādi is here very narrow and the gradient rapidly increases. The villages and hamlets passed between Wabāl and the head of the valley are inhabited by Beni Ruwāhah; most of them possess date-groves.

- $\frac{1}{2}$ m. *Wasād*, village of about 70 houses on both banks.
 $\frac{1}{2}$ m. **Himamt**, village of about 400 houses on both banks.
 $\frac{1}{2}$ m. *Qari*, hamlet of about 20 houses on l. bank.
1 m. *Biyāq*, village of about 40 houses on r. bank.
3 m. *Rissah*, village of about 50 houses on both banks.
1 m. *Jināh*, village of about 70 houses on both banks.
 $\frac{1}{2}$ m. *Mihall*, village of about 50 houses on r. bank. *Hammah*, village of about 40 houses, immediately above Mihall, on r. bank.

miles.
total. stages.

70 17 **Mughbāriyah**, village of about 100 houses with date-groves, on both banks at head of valley.

The route here leaves the valley by a stony track and traverses the *Nejd Mughbāriyah*, the high ground forming the crest of the watershed (alt. 2,400 ft.). On descending the farther slope it falls into the *Wādi Halfein*, which it follows.

7 m. **Muti**, village on r. bank ; elevation 2,300 ft. ; see I, p. 274.

84 14 **IZKI** (or **ZIKKI**), town of Oman Proper on both sides of *Wādi Halfein* ; pop. 4,000 ; elevation 2,150 ft. ; see I, p. 274.

[From Izki a route leads SW. by W. to Manah (17 m.). It first follows the l. bank of *Wādi Halfein*, passing *Zikkeit* (1½ m.), a small village enclosed by a quadrangular wall with two bastions. Leaving *Wādi Halfein*, it crosses a broad, slightly undulating plain of light sandy soil, declining to S. and W., to Manah (see I, p. 274 f.).]

Leave Izki across r. bank of *Wādi Halfein*.
Dir. W. over level plain, dotted with acacia trees and scanty herbage and intersected by shallow water-courses.

Cross *Wādi Hajar*, which contains a village of the same name.

6 m. **Birkat el-Mōz**, large village, built at point where *Wādi Mi'ardin* emerges from *Jebel Akhdhar* ; total pop. 1,400 ; see I, p. 274.

Dir. W. across plain.

104 20 **NIZWA**, most central town of Oman Proper ; pop. 6,000 ; elevation 1,900 ft. ; see I, p. 272 f.

Leave by upper course of *Wadi Kalbu*, the track winding over rough ground under foothills of *Jebel Akhdhar*, on which are watch-towers.

8 m. **Tanūf**, small town ; elevation 1,950 ft. ; see I, p. 272.

miles.

total. stages.

Leave by W. gate, over stony plain crossed by numerous small wādis, passing several hamlets, such as *Hamra* (pop. 400).

- 123 19 *Ghamr* and *Bilād Seit*, two hamlets of goat-rearing shepherds. The country is very rough and scantily dotted with vegetation.

9 m. Fort. Here cross *Wādī Shāmāh* and ascend *Wādī Ghūl*, which at this point has a broad sandy bed with a few trees and scanty vegetation.

The banks of the wādi become high and vertical, and its bed steeper and stonier; there is a perennial stream. Several hamlets of shepherds are passed.

- 138 15 *Mithar*, shepherd hamlet; altitude 2,600 ft. Continue up *Wādī Ghul* to the pass '*Aqabat el-Barak*. The gradient is severe, the ground rugged, and there is no beaten track; scanty bushes of euphorbia.

8 m. (4 hrs.) *Nejd el-Barak*, head of the pass '*Aqabat el-Barak*; altitude 3,700 ft. The highest peak of *Jebel el-Kōr* towers some 2,000 ft. above the pass.

[There is a lower alternative pass over *Jebel el-Kōr*, by *Nejd el-Makhārīm* (altitude 2,500 ft.), the gap between *Jebel el-Kōr* and its southern spur *Jebel Hamra*; but it involves a considerable detour to the S., and its ascent on the E. side by a rocky torrent bed is more difficult for loaded animals.]

The descent from *Nejd el-Barak* into *Dhāhirah* is easier than the ascent of the pass, the track falling into *Wādī 'Ain*, at first a rugged ravine, but lower down containing an important stream.

- 7 m. *Heil* (or *Heil Beni Hina*), village of about a hundred houses of the *Beni Hina*, at the foot of *Jebel Misht*, a perpendicular cliff with a ridge notched like a comb; scanty cultivation. The descent of *Wādī 'Ain* becomes easier.

miles.

total stages.

- 158 20 *El-'Ain* (or *'Ain Beni Sārikh*), village of about 70 houses of the Beni Sārikh, with watch-tower ; copious spring. Altitude 1,200 ft.
Continue some distance down Wādi 'Ain ; then turn off to r. over sterile plain with a few stunted acacias and euphorbias.
- 12 m. **Bāt**, village of the Beni Kelbān ; see I, p. 270.
- 178 20 *Muheirah*, village of 60 to 80 houses, surrounded by date-groves, orchards, and cultivation ; good stream of water. Continue over plain.
- 8 m. **Dariz**, small town, one of the chief centres of the Beni Ghāfir tribe in Dhāhirah ; population about 1,200 ; see I, p. 269. It stands in a valley known as *Qarn el-Kabsh*, a tributary of the Wādi el-Kebīr ; hot springs in neighbourhood.
- 9 m. *Beit el-'Ainein*, large fort and hamlet ; see I, p. 269.
- 198 20 **'IBRI**, largest town of Dhāhirah ; population 5,000 ; elevation 1,180 ft. ; see I, p. 270. It stands in *Wādi Saneisal*.
- 1½ m. Cross neck between low hill overlooking 'Ibri and a prominent spur of the main range. Route then traverses undulating plain, stony and sandy in places, with sparse vegetation.
- 8 m. At about this point a cluster of hills is passed lying away to S.
- 217 19 **Mazum**, large strongly-walled village, with guarded entrance, inhabited by Baluchis. From village climb steep ascent to pass over *Jebel Fuleij* (or *Faleij*). The track is strewn with boulders, and is difficult on that account ; it is said to be capable of improvement with little difficulty by removal of obstructions. After crossing the pass, the track gradually takes a north-westerly direction, in order to clear a spur thrown out into the plain from the main range on the E. ; it passes over sandy soil.
- 8 m. At about this point the spur is rounded.
Dir. NE. over shingly ground.
- 231 14 **DHANK**, second largest town of Dhāhirah ; pop. 3,500 ; see I, p. 268.

miles.
total. stages.

Dir. W. over level stony plain, studded with mimosa bushes and acacia.

12 m. *Bizeili*, village of Bedouins tending sheep and goats ; water-supply from wells. Continue E. over similar country.

257 26 *Mufiyah*, watering-place with large well. In winter a camp of about 30 mat-huts of the Āl Bu Shāmis Na'im is generally pitched here.

Dir. NE. over plain ; mimosa bushes and acacia trees, hitherto plentiful, gradually disappear. Desert vegetation reappears on approaching Hafit.

276 19 *Hafit*, three separate but almost contiguous villages.

Dir. N. over similar plain, frequented during winter months by shepherds with their flocks. Track runs parallel to base of *Jebel Hafit* on the W., but keeps some distance from it to avoid boulders on lower slopes.

14 m. *Jahāli*, outlying village of the Bireimi oasis, which is here entered.

Dir. NE. towards Bireimi village, passing *Ma'ataradh*, another village of the oasis.

294 18 **BIREIMI**, principal village of oasis ; see I, p. 281.

ROUTE 72

MUSCAT—ROSTĀQ—MISKIN—DHANK

Authorities : Wellsted, 1835, and Miles, 1876, 1884, 1885, and native information obtained by Indian Government.

General Direction : W.

Distance : Crow-fly, 160 miles ; road, 193 miles.

Character and Supplies : see p. 62.

miles.
total. stages.

MUSCAT, town ; see I, pp. 255 f.

[For the first section of the route, along the coast to Masna'ah, see Route No. 73, pp. 329 ff.]

65 65 **Masna'ah**, capital of vilayet, at mouth of Wādi Fara', on E. bank ; see I, p. 253.

miles.
total. stages.

Ascend *Wādi Fara'*, through date-groves which extend for two or three miles.

3 m. *Tau esh-Shawi*, hamlet of about 20 houses with date-palms, on r. bank of wādi.

$\frac{1}{4}$ m. *Tarīf*, village of about 60 houses and date-groves, on l. bank.

10 $\frac{1}{4}$ m. *Misfāh*, village of about 100 houses.

80 15 **Hazam**, walled village and fort on l. bank, 1 m. from bed of wādi ; see I, p. 265 f. The fort commands the route from Masna'ah, and that from Suweiq, which joins Wādi Fara' at this point.

[An *Alternative Route* to Hazam, which leaves the coast at Suweiq, 14 m. W. of Masna'ah (see Route No. 73, p. 331), crosses the Bātinah plain, the soil being sandy at first but afterwards firmer ; it passes Muladdah (14 m.), a town of about 400 huts with bazaar, and reaches Hazam after a further 6 m. (20 m. from Suweiq).]

1 $\frac{1}{2}$ m. *Shabeikah*, village of about 50 houses with date-palms, on both banks of Wādi Fara'.

2 $\frac{1}{2}$ m. *Dāris*, village of about 40 houses with date-groves, on r. bank ; *Felej Wusta* (or *Felej Hawāshim*), an adjoining village of about 150 houses, lies on r. bank up stream.

1 m. *Felej 'Ali* (or *Felej Beni 'Umr*), village of about 150 houses with extensive date-groves, on r. bank.

3 m. **Wusheil**, town of about 700 houses, with extensive date-groves, on r. bank. Opposite, on l. bank, is *Felej Shirāh*, a village of about 100 houses with date-groves.

Here Wādi Fara' enters the hills.

2 m. Group of four adjoining villages, in date-groves : the largest, *Mizāhīt*, on r. bank, contains about 200 houses, with post of 15 askaris of Sultan of Oman.

Wabil, on r. bank ; about 150 houses.

Tikhah, on l. bank ; about 20 houses.

Ghashab, on both banks ; about 500 houses.

2 m. Group of 3 adjoining villages in date-groves :

Hallah, on l. bank ; about 100 houses.

miles.

total. stages.

Saqairiyah, on r. bank ; about 30 houses.*Murbah*, on l. bank ; about 150 houses.

- 95 15 **Rostāq**, or **Qal'ah Kesra**, fort and village, the capital of the Fara' valley and surrounding district ; see I, p. 265.
 Dir. W. by N., across low hills of the Rostāq district to *Wādi Sahtan*, which contains flowing water ; ascend wādi past some villages.

After leaving wādi, track passes *Dahis*, small walled town with fort, and crosses the hills to *Wādi Beni Ghāfir*, which it ascends ; the wādi contains a fine stream.

- 115 20 **Mahbab**, village of about 60 houses in a glen on r. bank of *Wādi Beni Ghāfir*.

Continue up wādi.

6 m. (2 hrs.) *Murri*, village of about 60 houses and 2 forts, on l. bank.

9 m. (3 hrs.) *Bilād esh-Shahūm*, village of about 100 houses on l. bank.

5 m. (2 hrs.) *Rimi*, village of about 60 houses on r. bank.

5 m. (2 hrs.) *Sa'bah*, hamlet of about 25 houses on l. bank, at head of the valley. Cross the watershed by pass between *Wādi Beni Ghāfir* and *Wādi el-Kebir*.

- 142 27 **Miskin**, village in the hills above head of *Wādi el-Kebir* ; see I, p. 268 f.

Dir. SW., descending barren and rather broken ground.

- 157 15 **'Āridh**, village (altitude 1,250 ft.), on r. bank of *Wādi el-Kebir* ; see I, p. 269.

[From 'Āridh a route runs down the *Wādi el-Kebir* to *Dariz* (4 hrs.), situated in a side valley, from which 'Ibri (the largest town of *Dhāhirah*) is 12 m. distant ; for the section *Dariz*-*'Ibri*, see Route No. 71, p. 325.]

Dir. WNW., across sterile foot-hills between *Wādi el-Kebir* and *Wādi Dhank*.

25 m. **Fida**, village (see I, p. 268), on r. bank of *Wādi Dhank*, in which is a fine stream.

Descend wādi, at first through date-groves.

miles.
total. stages.

7 m. *Dūt*, village on r. bank ; see I, p. 268. Continue along wādi, at first through date-groves; afterwards the wādi widens to a small plain, contracting again before reaching Dhank.

193 36 **DHANK**, second largest town in Dhāhirah ; pop. 3,500 ; see I, p. 268.

ROUTE 73

MUSCAT—SOHĀR—BIREIMI—ABU DHABI

Authorities : Wellsted, 1839, Miles, 1876, and Indian Govt. Road Book (Sections of the coast-route from Muscat to Sohār) ; Miles, 1875, and Cox, 1905, and native information, compared with Zwemer, 1902 (Sohār to Bireimi) ; Cox, 1902, with details from Zwemer, 1901 (Bireimi to Abu Dhabi).

General Direction : NW. to Sohār ; then W.

Distance : Crow-fly, 275 miles ; road, 322 miles.

Character and Supplies : see p. 62 f.

miles.
total. stages.

MUSCAT, town ; see I, pp. 255 ff.

[For the two tracks from Muscat to Matrah, and for the more usual mode of transit by sea, see above, Route No. 71, p. 319.]

2 m. **MATRAH**, town ; see I, p. 257 f.

Leave through adjoining village of *Arbaq* (see I, p. 258).

$\frac{1}{2}$ m. *Shateifi*, fishing village of 30 to 40 houses.

$\frac{1}{4}$ m. *Ayyint*, small village with date-palms.

$\frac{1}{4}$ m. *Dārseit*, hut-village in two quarters, divided by mouth of *Wādi Beit el-Fuleij* (or *Faleij*) ; stone fort in W. quarter, and smaller fort among huts of E. quarter. There are two towers on spurs of the hills, one on each side of village. Date-groves extend a mile up the deep wādi ; there is a considerable fishing industry.

$3\frac{1}{2}$ m. *Ras el-Ahmar* (or *Ras el-Hamar*), a point with red cliffs, 150 ft. high ; here the hills begin to recede from the coast.

miles.

total. stages.

- 1½ m. *Sāru*, village of about 30 houses with date-palms.
- 2 m. *Khuweir*, village of 30 to 40 huts with date-palms, on small creek where large water-course discharges. 5 m. to Ghubrah.
- 15 15 *Ghubrah*, fishing village of about 60 huts, in two quarters divided by wādi; wells and date-palms.
- 1½ m. *‘Adeibah*, village of 50 to 60 huts with date-palms, about 1 m. inland.
- 1½ m. Beginning of sandy shore of Bātinah.
- 6 m. *Heil Āl ‘Umeir*, fishing village of 50 to 60 houses, with date-groves and cultivation. 5 m. to Sib, through date-groves, gardens, and fields of wheat and barley.
- 29 14 **Sib**, capital of vilayet; see I, p. 254. Abundant water from wells at 12–15 ft.; after rain, streams flow along some of the mouths of *Wādi Semā’il*. Route continues for two miles through date-groves and cultivation.
- 4 m. *Laghshibah*, village of about 60 houses with date-palms, about 1 m. inland; fishing-boats on coast.
- ½ m. *Ma‘bīlah*, village of about 40 houses, on W. bank of *Wādi Qatīb* at its mouth; date-palms and some cultivation.
- 3½ m. *Shakhākhūt*, village of about 40 houses with date-palms.
- 2 m. *Rumeis*, village of about 40 houses; date-palms.
- ½ m. Cross mouths of *Wādi Tau* and *Wādi Lājāl* (a little farther W.).
- 1½ m. Mouth of *Wādi Manūmah*; huts in neighbourhood.
- 2 m. *Harādi*, village of about 100 huts with one fortified house, 4 m. from Barkah.
- 47 18 **BARKAH**, capital of vilayet, on E. bank of *Wādi Ma‘āwal* at its mouth; see I, p. 253 f.
- 5 m. *Hadhib*, village of about 40 houses with date-palms, a short distance inland.
- 6 m. Cross mouth of *Wādi el-Qasīm* (the lower course of *Wādi Beni Kharūs*).

miles.
total. stages.

- 4 m. *Bu 'Abāli*, large scattered village of palm-huts, with date-palms; sugar and lucerne cultivation.
- 1 m. *Sha'ibah*, village, with date-palms and cereal cultivation, at mouth of *Wādi Beni 'Auf*; 2 m. to Masna'ah through date-groves.
- 65 18 **Masna'ah**, capital of vilayet, at mouth of *Wādi Fara'*, on E. bank; see I, p. 253. Track continues through date-groves.
- ½ m. **Shirs**, town of some 500 houses, in two separate quarters, on W. bank of *Wādi Fara'*.
- 4½ m. *'Aweid*, fishing village of some 80 huts.
- 3 m. **Wudām**, town of some 400 huts, the port of neighbouring districts and, to some extent, of *Wādi Beni Ghāfir*; 40 sea-going and some fishing-boats; no bazaar, business being done in private houses.
- 3 m. **Khabbah**, village of 300 or 400 houses, with date-palms and cultivation, 3 m. from Suweiq.
- 70 14 **Suweiq**, capital of vilayet; see I, p. 253.
- 2 m. **Bat-ha Yāl Sa'd** (or **Bat-ha Suweiq**), very scattered village of about 600 houses of the Yāl Sa'd tribe, at mouth of *Wādi Beni Ghāfir*.
- 5 m. **Khadhr**, fishing village of about 400 houses with date-palms.
- 4 m. *Sūr Hayyān*, village of about 250 houses with date-palms; 40 large sea-going boats.
- 3 m. *Dhiyān*, village of some 200 houses with date-palms.
Hajeirah, on sea to W. of *Dhiyān*, some 40 permanent huts with wells and date-groves; one of the camping-grounds of the nomad *Āl Bu Qarein*, with a large fluctuating population in tents, possessing many camels and sheep.
- 4 m. *Hadhib*, village of some 50 houses; date-palms and cereal cultivation.
- 3½ m. *'Abbāsah*, fishing village of about 150 huts with date-palms; 1½ m. to *Khābūrah*.

miles.

total. stages.

102 23 **KHABŪRAH**, capital of vilayet, at mouth of *Wādi el-Hawāsiyah*; see I, p. 252.

4 m. *Qasbiyat ez-Za'āb*, small village of some 25 houses, with date-groves and cultivation. The following villages are then passed: *Qasbiyat el-Hawāsinah*, about 30 houses and cultivation; *Qasbiyat Āl Bu Sa'id*, about 20 houses, at mouth of *Wādi Shāfān*; *Qasbiyat Yāl Breik*, about 70 houses; *Khōr el-Milh*, about 80 houses (with a small village *Felej el-Hijāri*, 1 m. inland).

4 m. **Manātīf**, scattered village of about 1,000 houses, its five quarters extending three or four miles along the coast.

5 m. *Dīl Yāl Breik*, village of 90 houses, with cultivation of dates, wheat, and sugar.

1 m. *Dīl Yāl 'Abd es-Salām*, fishing village of about 100 houses. A smaller fishing village, *Umm el-Ja'ārīf*, is passed before reaching *Makhailīf*.

4 m. *Makhailīf*, village of about 70 houses; date-palms and cultivation. *Khōr el-Hamām*, village of about 30 houses, is passed before reaching *Saham*.

5 m. Cross *Wādi 'Āhin* [so Hunter and Indian Govt. Road Bk.; according to Lorimer, *Wādi Sarrāmi* enters sea to E. of *Saham*, and *Wādi 'Āhin* $\frac{1}{2}$ hr. to W. of *Saham*]; 1 m. to *Saham*.

126 24 **Saham**, capital of sub-vilayet; see I, p. 252. After leaving *Saham*, route crosses *Wādi Sarrāmi* [or *Wādi 'Āhin*; see above], and passes *Sūr esh-Shiyādi*, village of about 60 houses (leaving smaller village, *Ghuweisah*, a little inland), and *Abu Dhurūs*, village of about 40 houses.

4 m. *Kishdah*, village of about 100 houses and date-palms.

2 m. *Majiz el-Wahibah*, village of about 100 houses of the *Āl-Wahibah* tribe, and *Majiz en-Nuwāfil*, village of about 300 houses of the *Nuwāfil*; only a short distance separates the two villages.

miles.
total. stages.

- 8 m. 'Aweināt, village of about 100 houses with date-palms.
Cross *Wādi el-Hilti*.
- 1 m. *Saweiharah*, village of about 100 houses ;
4 m. to Sohār.
- 145 19 **SOHĀR**, capital of vilayet ; see I, p. 251 f.
Dir. NW., through date-belt and cultivation, parallel to coast.
- 3 m. *Sallān*, village of about 150 houses, immediately to S. of the mouth of *Wādi el-Jizi*.
Dir. W., over plain, sandy in places.
- 3½ m. 'Auhi, village of about 100 houses, and spring ; cultivation of dates, limes, and mangoes by *felej* irrigation.
- Dir. SW. across the *Bātinah*, a stony plain gradually rising towards the hills, and sparsely covered with acacia jungle and underwood.
- 2½ m. *Felej el-Qabā'il*, hut-settlement of Beni Jābir nomads ; spring and date-palms ; 6 m. to *Felej es-Sūq*.
- 160 15 *Felej es-Sūq*, deserted village with ruined aqueduct.
Dir. SW. across plain.
- 2½ m. Enter *Wādi el-Jizi*, shallow water-course, which is followed with slight intermissions for nearly 30 miles, between bare and sterile hills.
- 1 m. *Sihlāt*, village of about 30 houses, on hill to r. of wādi.
- 2 m. *Gharrāq*, village of about 20 houses of the Beni Ghaith, on r. of wādi.
- 1½ m. *Mileyyinah*, hamlet of about 15 houses on r. of wādi.
- Dir. W. up *Muzeiq* defile, a steep and winding ascent from foot of hill range.
- 4 m. Dir. S., returning to *Wādi el-Jizi* at *Saheilāh*.
- 175 15 *Saheilāh* (or *Sahilāh*), village of about 100 houses of the Kunūd ; two small towers for defence.
Dir. SW., up bed of wādi.
- 4½ m. *Wādi Thiqbah* and *Wādi Hansi* join main wādi on N. and S. sides. Near this point the *Wādi el-Jizi* forms a loop and the track

miles.
total. stages.

crosses the '*Aqabat el-Qumāshi*, afterwards rejoining wādi.

- 4 m. *Burj esh-Shikeiri*, tower on peak, 200 ft. high, on r. bank of wādi, joined by stone wall to second tower below.

$\frac{1}{2}$ m. *Khān*, village of about 80 houses of the Beni Hina and Maqābīl.

- 2 m. Leave wādi and cross plain.

- 3 m. Rejoin wādi near *Khaweirij*, village on r. bank, about 40 houses of Beni Keleib; small fort and two towers; extensive cultivation in terraces. Near *Khaweirij*, *Wādi Wāsīt* (with village of Wāsīt 1 m. up it) joins Wādi el-Jizi from the SW.

- 190 15 *Heil Bin Suweidān*, village of about 80 houses with date-palms, defended by several towers, adjoining *Khaweirij*; together they form the largest settlement between Sohār and Bireimi. Heil is inhabited by rival sections of Beni Keleib, often at feud with *Khaweirij*, whose water-supply they cut off.

$\frac{1}{2}$ m. *Rabi*, village of about 50 houses of Beni Keleib, with date-palms on r. bank of wādi; on opposite bank are remains of tower on pinnacle of rock 200 ft. high. Continue up wādi.

- 1 m. Junction of Wādi '*Abeilah* (from NW.) and Wādi *Kitnah* (from SW.), which form the Wādi el-Jizi.

Ascend Wādi '*Abeilah* for short distance, and then cross the '*Abeilah* plain, a more level tract between the two wādīs.

Gradually ascend pass to highest point, *En-Nejd* (elevation 1,860 ft.), the peaks of range rising 1,000 ft. or more on each side.

- [An alternative track may be taken, which continues for 10 miles along Wādi '*Abeilah*, passing the villages *Subeithah* (4 m.) and *Kabeidah* (3 m.) before leaving bed of wādi.]

Enter Wādi '*Ain*, which runs in SW. direction.

- miles.
total. stages.
- 206 16 *Khūrūs*, small settlement (elevation 1,630 ft.); perennial supply of water from cleft in rocky bed of Wādī 'Ain.
Dir. slightly N. of W., across *Jau Plain* (locally pronounced *Jo*), sparsely studded with acacias, which is traversed to Bireimi.
4½ m. Route passes between two peaks, *Khatmat esh-Shiklah* and *Khatmat es-Suwwād* to N. and S. respectively.
2½ m. Enter section of plain known as *Muzeilah*, which route crosses for some 3 miles.
8 m. Edge of *Bireimi Oasis*.
1 m. *Su'arah*, village of about 100 houses.
- 223 17 **BIREIMI**, central village of oasis; see I, p. 281.
After clearing the oasis take general direction slightly N. of W.
Cross *Wādī Bat-ha*, here 300 yards wide.
7 m. Track here enters a desert of sand-hills with very little vegetation, which continues most of the way to El-Maqta'.
Jebel Hafit, a barren mountain is visible to SE.
- 234 11 *Yahar* (also called *Jahar* or *Juhar*); one well in long patch of mimosa jungle in middle of the desert of sand-dunes (4½ hrs. from Bireimi).
15 m. *Za'lah*; no water.
- 258 24 *Būl-Huweil*; two or possibly three wells in the sand (10 hrs. from Yahar).
8 m. *Rakhhkam*; clump of large trees in surrounding desert of sand-dunes.
2 m. *Ramlat el-Kebīrah*, region of large sand-hills.
- 273 15 *Muweih Arnab*; half a dozen shallow water-holes in hollow between sand-hills; water soon exhausted, when holes gradually refill (5½ hrs. from Būl-Huweil).
13 m. *Habl*; hollows among sand-hills which at times contain water.
- 299 26 *Narseila* (11 hrs. from Muweih Arnab); no water.
The landmark of this place is an outcrop of limestone rock of fantastic shape, standing above the sand, and known as *Hisn Iblis* or *Sūq Iblis*.

miles.
total. stages.

The downs and dunes of sand give place to sandy desert with occasional patches of shale and shingle.

- 312 13 *El-Maqta'*, 'the Ford' (5½ hrs. from Narseila); tidal creek running in from the sea, only fordable at one place at low tide. In the middle of the tidal current there is a fort and watch-tower from which a custodian, maintained by the Sheikh of Abu Dhabi, directs caravans when and where to cross; a small guard is stationed at the fort. The track then lies across a level, saline plain.

- 322 10 **ABU DHABI**, principal town on the Trucial Coast; see I, p. 337 f.

[An alternative route from Bireimi to *El-Maqta'* runs to the N. of the main route via *Nahshalah*, where wells and date-trees are reported, about 16 m. to the N. of Rakhkham (see above, p. 335). Between Bireimi and *Nahshalah* the route is divided into three fairly equal stages at the two watering-places *Jariyin* and *Asweihān*.]

ROUTE 74

HOFŪF—BIREIMI—RAS EL-KHEIMAH

Authorities: For the first part of route to Bireimi, native information obtained by Prideaux, 1906; Bireimi to Ras el-Kheimah, Cox, 1905; Burchardt, 1904, travelled from Hofūf to Dōhat es-Salwa, but he gives few details.

General Direction: SE., then E., then NE.

Distance: Crow-fly, 385 miles; road, 592 miles.

Character and Supplies: see p. 63 f.

HOFŪF, town; see I, p. 305.

Dir. E., at first by well-defined road, across stony plain.

1 m. *Beni Nahu*, hamlet of 20 houses on N. of route.

1½ m. **Beni Na'ām**, village of 200 houses, on N.

1½ m. **Fudhūl**, village of 250 houses, on S.

2 m. **Maneizlah**, village of 250 houses. The track becomes less well-defined.

miles.
total. stages.

- 2 m. **Bāb el-Jafar**, walled village immediately S. of route ; 350 houses.
- 1 m. **Jishshah**, large village of 400 houses ; good water, grass and fuel obtainable ; inhabitants cultivate dates and own camels.
- Continue E., over stony plain, for 2 m., through sand-hills for 6 m., and thence across nitrous depression.
- 21 21 *Shātar*, 3 wells of brackish water ; no grazing nor fuel. Dir. slightly S. of E., across the *Jāfūrah* desert.
7 m. *Man'āyah*, well.
Dir. SE. across the desert.
5 m. 'Alah wells, 2 m. to N. of route, in district of the same name.
- 44 23 *Bahath* (*Bajash el-Bahath*).
Continue SE. through the N. part of the *Jāfūrah* desert.
18 m. *Ba'aij*, wells.
- 72 28 *Dōhat es-Salwa* ; brackish wells, some palms and a ruined building near the sea.
Dir. SE. along southern border of El-Qatar, across desert of gravel and marl mixed with sand.
- 99 27 *Sakak*, well, lined with masonry ; some small date-plantations ; hills in neighbourhood.
Dir. SSE. through SE. Qatar. 'Aqal, a small littoral district of firmer soil, is entered at end of stage, just before 'Aqalat er-Rims.
- 127 28 'Aqalat er-Rims, wells with good water at 6 ft., from 5 to 10 m. from coast.
Dir. S. across district of 'Aqal.
[N.B.—Some ten miles can be saved between 'Aqalat er-Rims and 'Aqalat en-Nakhalah (see below) by taking a more direct route along the coast at the head of Dhuweihin bay.]
- 151 24 *Dhuweihin*, important camping-ground ; well about 12 ft. deep, surrounded by 10 smaller ones 6 ft. deep, all with good water.
Dir. S. by E. across 'Aqal. Good water occurs here near the surface over a considerable area.
- 177 26 'Aqalat en-Nakhalah, camping-ground amongst sand-hills.

miles.

total. stages.

Dir. E. across the *Mijan* desert.10 m. *Ba'jah*, spring, or overflowing well, in patch of green grass, about 2 m. to NE. of track.

- 189 12 *Sil'a*, well, about 5 m. from coast, under E. face of stony ridge; water brackish, but is drunk in emergency.

Dir. S. by E. across the *Mijan* desert.

- 213 24 *Ghadeyyar el-Lal*, well of sweet water, the best in *Mijan*, in an earthy plain in which there is some scrub; at times the water in well falls 6–12 ft. below surface, but after rain it sometimes overflows.

Dir. ENE. across *Sabakhat el-Matti*, a saline or nitrous marsh, extremely desolate; double stage, the intermediate halting-place being optional.

- 253 40 *Umm Lashtān*, well with brackish water, at 12 ft. or more, near W. extremity of *Beinūnah*. '*Aqailah*, well with good water at 30 ft., lies 3 or 4 m. to N.

Dir. E. across the *Beinūnah* desert; double stage, the intermediate halting-place being optional.9 m. *Kharijat eth-Thāmir*, well about 4 m. to S. of track.

- 286 33 *Da'fas*, well with good water at 9 ft., in central *Beinūnah*.

Dir. E. across the *Beinūnah* desert.12 m. *Bābah*, well, with water at about 18 ft., lined with masonry to half its depth; water good.

- 309 23 *Kafeifah*, well, with good water at 9 ft., near the borders of *Beinūnah*, *Taff*, and *Dhafrah*.

Dir. ENE., bearing slightly northwards into the maritime district of *Taff*.

- 325 16 *Tareif*, shallow well; water not always obtainable.

Dir. E. for three stages, the first two days through *Taff*; the third through *Dhafrah*, the general level of which is higher than that of *Taff*; intermediate halting-places optional.30 m. *Thā'ih*, well with water at 12 ft.

- 382 57 *Nimeiriyah*, well with fair water at 6–12 ft.

[From *Ghadeyyar el-Lal* (see above, m. 213) to *Nimeiriyah*, the following *alternative route*, lying more inland, is usually taken by caravans in winter; it is some 4 m.

miles.
total. stages.

longer than the summer route, and minor digressions are sometimes made :
Ghadeyyar el-Lal, see above, p. 338. Cross the desolate district of *Sabakhat el-Matti* ; double stage, halting-place optional.

52 m. *Muhibbi*, well with water at 12 ft. Cross *Beinūnah* desert.

31 m. *Bada' el-'Ajūz*, well 42 ft. deep ; not reliable.

Cross *Dhafrah Proper* ; three stages, halting-places optional.

55 m. *Latir*, well with water at 6–12 ft. Continue across *Dhafrah Proper*.

37 m. *Nimeiriyah*.]

Nimeiriyah, see above, m. 382 of summer route.

Dir. ENE. across *Dhafrah Proper*. The track crosses heavy, sandy soil of a dark red colour, with sand dunes of a lighter shade, and gravelly patches.

406 24 *Shuweibir*, well, with water at 9 ft. *Būl-Khuwāwis*, well, lies 5 m. to SE.

Dir. ENE. across the *Khatam* district, through sand dunes.

9 m. *Baheirān*, well.

435 29 ' *Ānikah*, good water from shallow pits.

Dir. ENE., across bare, sandy desert.

457 22 *Yahar* (also known as *Jahar* or *Juhar*) ; one well in long patch of mimosa jungle. For this stage the track follows, in the reverse direction, the route from Bireimi to Abu Dhabi (see Route No. 73, p. 335 f.).

Dir. slightly S. of E. across undulating sandy desert ; *Jebel Hafit*, a barren mountain, is visible to SE.

4 m. The sand-hills are left ; Bireimi Oasis becomes visible.

Cross *Wādi Bat-ha*, here 300 yds. wide, and enter Bireimi Oasis.

468 11 **BIREIMI**, central village of oasis ; see I, p. 281.

Dir. WNW. through oasis.

1½ m. *Jīmi*, village within the oasis.

Dir. E. of N. through oasis.

1 m. *Mas'ūdi*, settlement within the oasis.

½ m. Oasis is left.

Y 2

miles.

total. stages.

Dir. N., ascending towards sand-dunes.

2 m. Enter *Ramlah Kahal*, difficult desert consisting of hills and valleys of loose drifting sand, on which tracks are immediately obliterated; no landmarks. General direction NNE.7 m. *Batīn el-'Uyān*, sandy undulating tract is entered, easier than the sand-dunes.4 m. *Shibhāt el-Khādim*, sandy tract is entered. Well of *Misākin*, to W. of track.488 20 *Wādi Misākin*, extensive depression in *Shibhāt el-Khādim*.

General dir. of track, which does not take a straight line, a little E. of N.

5 m. Cross *Wādi Nuwe'i*, dry.2 m. *Safwān*, well in centre of circular knoll. Gently undulating sand-dunes are crossed.3 m. *Bat-ha Saneibil* is crossed; well of *Zakar* about $\frac{1}{2}$ m. to W.*Ramlat el-'Aneij*, tract of rolling sand-hills.3 m. Descend tributary of *Wādi Sameini*.2 m. Cross *Wādi Sameini*.504 16 *Haza' edh-Dhabi*, well-wooded strip of plain, $1\frac{1}{2}$ or 2 m. in breadth, on r. bank of *Wādi Sameini*.Dir. almost due N. Continue in *Wādi Sameini*.5 m. Leave *Wādi Sameini*.

2 m. Between this point and 2 m. on, a projecting tongue of the western sand-desert is crossed.

523 19 *Museifi*, well, lined with timber at top, in the *Madām* plain; isolated peak of *Jebel Rōdhah* about 2 m. to E.[An alternative halting-place to *Museifi* is *Yideyyah*, in the *Madām* plain, 6 m. SW. of *Museifi*.]

Dir. almost due N., the track winding over a well-wooded sandy plain.

6 m. *Yahfar el-Fā'iyah*, well. The track keeps *Jebel Fā'iyah* on right at 1 or 2 m. distance. A hollow is traversed, containing *Hamdah* well, water at 40 ft., and timber-lined at top.9 m. Enter level stony plateau of *Muhāfidh*.541 18 *Muhāfidh*, stony plateau, without water or grazing, about 20 ft. higher than country to N. of it;

miles.
total. stages.

there is good grazing for camels a little farther along, below the descent from the plateau.

Dir. nearly due N., descending from plateau.

Cross plain into *Wādi Katheirah*.

5½ m. *Wushāh*, wells, in *Wādi Katheirah*.

2 m. Leave *Wādi Katheirah*, and cross open plain.

2 m. **Dheid**, isolated village and oasis, belonging to the Principality of *Shārjah*; see I, p. 344 f.

Continue across *Dheid* plain.

Wādi Manghōl is crossed; ½ m. up wādi to E. are wells of *Muraqqibāt*.

3½ m. Enter *Wādi Fareikh*, a sandy valley, which track ascends.

556 15 *Fareikh*, well in *Wādi Fareikh*.

Dir. a little E. of N.

Continue up *Wādi Fareikh*.

2½ m. Enter high undulating tract of sand, through which a winding course must be taken.

4 m. Sandy tract ceases.

2 m. *Adhan*, village, 4½ m. to E.; the track skirts western margin of *Jiri* plain.

4½ m. *Sā'adi*, wells.

574 18 *Hadeithah*, two wells, at western edge of *Jiri* plain, under the sand-hills which bound it. The wells contain water at 60 ft., and are lined near their mouths with stone; they are surrounded by *ashkar* shrubs and some fine *ghāf* trees.

Dir. slightly E. of N. across *Jiri* plain, following its western edge, the sand-dunes of the desert being close upon the l. The plain is thickly sprinkled with acacia trees and other jungle vegetation.

2 m. *Hamrānīyah*, two wells to E. of track, in a green oasis beside four or five acacia trees.

2 m. *Bu Ya'ilān*, two wells.

6 m. *Fahlein*, village to E. of track. Soon after leaving *Fahlein* the *Sir* plain is entered, a fertile date-covered plain extending in a long narrow strip from a point 5 m. to NNE. of *Ras el-Kheimah*.

1 m. *Heil*, village.

miles.
total. stages.

- 1 m. *Faleyyah*, village.
 2½ m. Leave Jiri plain and turn W. over sand-hills.
 1½ m. Turn NE. along the spit of sand at the head of which the town of Ras el-Kheimah is situated.
 592 18 **Ras el-Kheimah**, capital of the northernmost district of Shārjah; see I, p. 342.

ROUTE 75

DŌHAH—HOFŪF

Authorities: Burchardt, 1904; compared with native information obtained through Prideaux.

General Direction: W.

Distance: Crow-fly, 118 miles; road, 129 or 132 miles, according to route taken.

Character and Supplies: see p. 64.

miles.
total. stages.

- DŌHAH**, town; see I, p. 329 f.
 Dir. W. by S. across a gravelly and rocky desert.
 7 m. *Shaqab*, small fort with masonry well; fairly good water at 36 ft. Continue for 5 m. to end of half stage.
 12 12 *Wajbah*, walled garden, with tower and mosque; 3 masonry wells with fair water at 42 ft.
 Dir. WSW. across a bare plain.
 6 m. *Mukeimis*, masonry well with water at 42 ft.
 30 18 *Kar'ānah*, masonry well with fair water at 120 ft.
 Dir. W. over the same desert plain.
 27 m. Head of the *Dōhat es-Salwa*, brackish wells near the sea; see above, p. 337. [Here the route joins that from the Bireimi oasis to Hofūf, which is given in the reverse direction under Route No. 74, pp. 336 ff.]
 67 37 *Ba'aij*, wells.
 Dir. NW. through the N. part of the *Jāfūrah* desert.
 85 18 *Bahath* (or *Bajash el-Bahath*).
 Continue NW. across the desert.

		miles.	
total.		stages.	
			11 m. 'Alah, wells 2 m. to N. of route, in district of the same name.
			5 m. <i>Man'ayah</i> , well.
108	23		<i>Shātar</i> , 3 wells of brackish water.
			[For the stage from <i>Shātar</i> to Hofüf, via Jishshah, see Route No. 11, p. 98 f.]
129	21		HOFÜF , town; see I, p. 305.

The following is an *Alternative Route* from Ba'aij (see above, m. 67 of route) to Jishshah, via the wells of Hamrūr, which increases the total length of the route to Hofüf by 3 m. :

		miles.	
total.		stages.	
67	37		<i>Ba'aij</i> , wells; see above, p. 342.
			Dir. NNW., across the sandy coastal tract of <i>Barr el-Qārah</i> .
83	16		<i>Hamrūr</i> , wells.
			Dir. W. by N., through the <i>Jāfūrah</i> desert.
111	28		<i>Mureiqib</i> , well.
123	12		<i>Jishshah</i> , village with good water; see above, p. 98.
			[For the half-stage from Jishshah to Hofüf see Route No. 11, p. 98 f.]
132	9		HOFÜF , town; see I, p. 305.

CHAPTER IV

METEOROLOGICAL OBSERVATIONS

THE amount of meteorological material which is available from Arabia is very small, and is furnished almost wholly by coast stations on the Red Sea, the Gulf of Aden, and the Persian Gulf. From the interior there are only the descriptions of travellers together with such observations as they have been able to make in the course of their journeys. Nine months' observations are, however, available for San'ā in Yemen, and these have been included.

<i>Place.</i>		<i>Period of observation.</i>	<i>Altitude.</i>	<i>Lat. N.</i>		<i>Long. E.</i>	
		<i>Years.</i>	<i>Feet.</i>	°	'	°	'
<i>Red Sea Coast.</i>							
Jiddah	. . . . .	3-10	33	21	30	39	11
Perim	. . . . .	18	201	13	22	43	25
Aden	. . . . .	20	94	12	47	44	59
<i>Inland.</i>							
San'ā	. . . . .	4	7,750	15	23	44	11
<i>Persian Gulf.</i>							
Basra	. . . . .	11	25	30	25	47	50
Bahrein	. . . . .	9	18	26	15	50	30
Muscat	. . . . .	18	20	23	37	58	35

Northern Arabia, the southward continuation of the Syrian desert, lies to the west of the high-pressure region of Mesopotamia and Western Persia during the winter months, and experiences normally dry northerly and easterly winds. Low temperatures are common at night, and from the dryness of the air the winds often appear to be far colder than their temperature would indicate. Rain, and even snow, occur occasionally during the passage of depressions coming from the Levant or North Africa in the winter months. In the summer dry northerly and north-westerly winds prevail with high day temperatures even on the interior plateau, which rises to about 3,000 ft.

In the plateau of Central Arabia summer rains occur at the end of August or the beginning of September, while the low-pressure area extends from North-Western India to the Red Sea. These summer rains also occur in Southern Arabia at least south of 16° N. lat., but become irregular and uncertain in the interior further north. The eastern shore of the Red Sea receives but scanty rainfall, but in the mountains which divide it from the interior brief heavy showers fall almost daily in the summer months, and thunderstorms are common. The observations at San'ā fairly represent the hill stations of this region.

The circulation of air over Arabia is mainly controlled by the low-pressure system over the Persian Gulf in summer, when northerly and north-westerly winds prevail in the north, and down the Red Sea coast, with south-westerly winds over the southern coast. In the winter Eastern Arabia and the Persian Gulf form part of a great high-pressure system round which southerly and south-easterly currents flow, carrying winter rains to Eastern Abyssinia. In Northern Arabia the light winds of the normal circulation are often masked by the shallow depressions which pass eastward from the Mediterranean and Lower Egypt.

The chapters descriptive of the various provinces include details of information with regard to climate, for the most part derived from the personal experience of travellers. Such information will be found on the following pages :

Hejaz, vol. i, p. 98 f. ; Asir, vol. i, p. 129 f. ; Yemen, vol. i, p. 147 ; Aden, vol. i, p. 182 f. ; Hadhramaut, vol. i, p. 219 f. ; Oman, vol. i, p. 239 ; Koweit, vol. i, p. 285 ; Hasa, vol. i, p. 298 ; Bahrein, vol. i, p. 312 f. ; Nejd, vol. i, p. 350 ; Jebel Shammar, vol. i, p. 376.

For general observations on the relation of climate to physical configuration and human welfare, see vol. i, p. 16 f. For the effect of climate upon health, see vol. ii, chapter v, more especially p. 358.

In the following pages (346-56) Tables are given from observations taken at the stations mentioned on the preceding page, relating to Temperature, Rainfall, Humidity, Cloud, and Wind.

TABLE I

MEAN TEMPERATURE

	<i>Jan.</i> ° F.	<i>Feb.</i> ° F.	<i>Mar.</i> ° F.	<i>April.</i> ° F.	<i>May.</i> ° F.	<i>June.</i> ° F.
Jiddah	72.1	72.3	75.4	80.1	83.1	85.1
Perim	77.4	78.1	79.7	83.5	86.4	88.9
Aden	76.0	77.0	79.0	81.0	86.0	89.0
San'ā	56.8	59.2]	61.3	65.1	67.8	71.1
Basra * . . .	51.8	55.6	63.0	72.9	81.9	87.3
Bahrein * . .	61.2	62.2	67.2	74.3	83.1	87.2
Muscat	69.3	69.8	73.2	81.9	87.6	89.7

TABLE II

MEAN DAILY MAXIMUM TEMPERATURE

	<i>Jan.</i> ° F.	<i>Feb.</i> ° F.	<i>Mar.</i> ° F.	<i>April.</i> ° F.	<i>May.</i> ° F.	<i>June.</i> ° F.
Jiddah	77.0	78.6	81.4	86.0	90.2	91.3
Perim	82.7	82.9	85.0	88.2	92.1	94.9
Aden	80.1	81.0	83.6	88.7	92.8	94.8
San'ā	78.8	81.9	80.6	81.9	81.5	82.6
Basra	59.9	65.4	73.6	83.8	93.9	99.7
Bahrein	66.7	67.5	73.8	81.4	90.7	93.9
Muscat	73.5	73.9	78.4	86.5	93.7	95.9

TABLE III

MEAN MONTHLY MAXIMUM TEMPERATURE

	<i>Jan.</i> ° F.	<i>Feb.</i> ° F.	<i>Mar.</i> ° F.	<i>April.</i> ° F.	<i>May.</i> ° F.	<i>June.</i> ° F.
Jiddah	86.5	87.6	91.8	96.6	99.7	105.4
Perim	84.6	85.8	87.8	92.1	98.2	101.5
Aden	—	—	—	—	—	—
Basra	70.0	75.1	83.2	93.3	103.2	106.3
Bahrein	76.6	75.2	85.7	92.6	102.6	101.4
Muscat	80.7	79.2	89.4	96.5	104.5	106.6

* Deduced from $\frac{\text{Max.} + \text{Min.}}{2}$ — a correction derived from the observations of Baghdad and Bushire respectively.

TABLE I (*continued*)

MEAN TEMPERATURE

<i>July.</i> ° F.	<i>Aug.</i> ° F.	<i>Sept.</i> ° F.	<i>Oct.</i> ° F.	<i>Nov.</i> ° F.	<i>Dec.</i> ° F.	
87.4	87.6	86.4	83.5	79.9	76.5	Jiddah.
89.4	89.1	88.3	84.9	80.8	78.4	Perim.
88.0	86.0	87.0	82.0	79.0	77.0	Aden.
68.0	68.5	66.2	61.7	—	—	San'a.
90.2	90.7	85.3	77.4	64.9	56.0	Basra.*
90.3	91.2	87.8	80.9	73.7	65.0	Bahrein.*
88.2	85.0	84.4	82.2	77.1	72.4	Muscat.

TABLE II (*continued*)

MEAN DAILY MAXIMUM TEMPERATURE

<i>July.</i> ° F.	<i>Aug.</i> ° F.	<i>Sept.</i> ° F.	<i>Oct.</i> ° F.	<i>Nov.</i> ° F.	<i>Dec.</i> ° F.	
93.0	93.2	91.4	89.4	84.6	81.7	Jiddah.
96.3	95.9	94.7	91.3	87.3	84.3	Perim.
93.4	92.0	93.5	89.6	85.0	81.5	Aden.
79.3	81.0	82.8	82.6	—	—	San'a.
103.3	104.5	99.5	89.1	75.3	63.3	Basra.
97.7	98.4	94.6	88.5	79.9	70.8	Bahrein.
93.2	89.1	89.1	89.2	82.5	76.9	Muscat.

TABLE III (*continued*)

MEAN MONTHLY MAXIMUM TEMPERATURE

<i>July.</i> ° F.	<i>Aug.</i> ° F.	<i>Sept.</i> ° F.	<i>Oct.</i> ° F.	<i>Nov.</i> ° F.	<i>Dec.</i> ° F.	
100.4	98.2	100.6	97.0	92.3	88.9	Jiddah.
100.6	99.9	99.3	94.5	89.1	85.8	Perim.
—	—	—	—	—	—	Aden.
108.5	109.2	106.0	97.5	86.8	72.0	Basra.
102.7	103.8	100.7	95.2	89.2	79.7	Bahrein.
103.1	98.8	98.3	97.0	90.1	83.1	Muscat.

TABLE IV

ABSOLUTE MAXIMUM TEMPERATURE

	<i>Jan.</i> ° F.	<i>Feb.</i> ° F.	<i>Mar.</i> ° F.	<i>April.</i> ° F.	<i>May.</i> ° F.	<i>June.</i> ° F.
Jiddah (3 yrs.)	91·2	93·6	98·1	99·9	106·2	115·2
Perim	85·3	86·9	90·1	95·5	100·8	104·4
Aden	86·0	90·0	98·0	101·0	102·0	102·0
San'ā	85·3	89·2	91·4	90·3	90·0	89·2
Basra	80·1	83·3	91·9	99·9	114·2	111·4
Bahrein	83·1	83·2	95·2	96·5	108·8	106·7
Muscat	85·9	85·3	96·8	103·3	110·3	114·3

TABLE V

MEAN DAILY MINIMUM TEMPERATURE

	<i>Jan.</i> ° F.	<i>Feb.</i> ° F.	<i>Mar.</i> ° F.	<i>April.</i> ° F.	<i>May.</i> ° F.	<i>June.</i> ° F.
Jiddah	67·0	67·4	69·3	74·8	78·4	79·5
Perim	78·4	73·8	75·6	78·6	82·0	83·8
Aden	72·5	73·3	75·4	77·7	81·3	84·0
San'ā	39·9	42·3	48·0	51·6	53·1	55·0
Basra	43·7	49·0	56·3	65·0	74·3	80·8
Bahrein	56·4	57·6	63·0	69·7	78·0	83·1
Muscat	67·1	67·5	72·0	79·7	85·7	88·5

TABLE VI

MEAN MONTHLY MINIMUM TEMPERATURE

	<i>Jan.</i> ° F.	<i>Feb.</i> ° F.	<i>Mar.</i> ° F.	<i>April.</i> ° F.	<i>May.</i> ° F.	<i>June.</i> ° F.
Jiddah	59·7	59·9	62·1	67·5	70·3	74·7
Perim	70·0	72·5	73·2	75·9	77·2	81·3
Aden	—	—	—	—	—	—
Basra	32·7	37·4	45·5	55·7	65·2	75·4
Bahrein	46·7	49·6	54·5	60·7	70·3	76·1
Muscat	60·6	62·8	65·7	71·5	79·3	83·2

TABLE IV (*continued*)

ABSOLUTE MAXIMUM TEMPERATURE

<i>July.</i> ° F.	<i>Aug.</i> ° F.	<i>Sept.</i> ° F.	<i>Oct.</i> ° F.	<i>Nov.</i> ° F.	<i>Dec.</i> ° F.	
100·8	99·0	111·6	99·7	93·6	89·4	Jiddah (3 yrs.).
104·4	102·9	101·1	101·8	98·2	90·3	Perim.
102·0	100·0	100·0	100·0	97·0	93·0	Aden.
86·2	86·2	90·9	87·4	—	—	San'ā.
114·4	113·9	109·4	101·4	92·4	76·6	Basra.
105·7	107·5	105·4	104·7	92·4	84·1	Bahrein.
110·3	105·3	102·8	102·3	96·3	88·3	Muscat.

TABLE V (*continued*)

MEAN DAILY MINIMUM TEMPERATURE

<i>July.</i> ° F.	<i>Aug.</i> ° F.	<i>Sept.</i> ° F.	<i>Oct.</i> ° F.	<i>Nov.</i> ° F.	<i>Dec.</i> ° F.	
82·6	82·9	81·7	78·0	74·3	71·3	Jiddah.
84·7	84·4	83·7	80·7	77·3	74·7	Perim.
82·5	80·4	82·6	77·8	74·8	73·2	Aden.
57·4	56·5	50·2	45·9	—	—	San'ā.
81·8	81·0	74·9	66·4	57·0	49·6	Basra.
85·4	86·1	82·5	76·0	68·4	59·7	Bahrein
87·5	84·0	83·1	80·6	75·2	70·3	Muscat

TABLE VI (*continued*)

MEAN MONTHLY MINIMUM TEMPERATURE

<i>July.</i> ° F.	<i>Aug.</i> ° F.	<i>Sept.</i> ° F.	<i>Oct.</i> ° F.	<i>Nov.</i> ° F.	<i>Dec.</i> ° F.	
77·5	78·4	76·8	74·8	67·8	63·1	Jiddah.
80·6	77·5	80·4	78·1	73·9	72·0	Perim.
—	—	—	—	—	—	Aden.
76·2	75·4	66·2	57·7	46·5	38·5	Basra.
80·0	80·5	76·4	69·1	60·8	51·0	Bahrein.
81·7	78·7	79·2	75·3	69·7	65·6	Muscat.

TABLE VII

ABSOLUTE MINIMUM TEMPERATURE

	<i>Jan.</i> ° F.	<i>Feb.</i> ° F.	<i>Mar.</i> ° F.	<i>April.</i> ° F.	<i>May.</i> ° F.	<i>June.</i> ° F.
Jiddah (3 yrs.)	55·4	56·5	59·9	67·1	68·4	72·1
Perim	60·3	70·5	71·1	72·1	72·1	80·6
Aden	65·0	66·0	67·0	69·0	70·0	76·0
San'ā	37·9	31·3	39·9	46·8	47·1	40·1
Basra	28·7	31·1	39·7	52·3	59·1	70·3
Bahrein	40·8	44·8	51·3	57·3	65·3	72·3
Muscat	57·5	62·7	62·1	70·6	78·1	78·3

TABLE VIII

MONTHLY RANGE OF TEMPERATURE

	<i>Jan.</i> ° F.	<i>Feb.</i> ° F.	<i>Mar.</i> ° F.	<i>April.</i> ° F.	<i>May.</i> ° F.	<i>June.</i> ° F.
Jiddah	26·8	27·7	29·7	29·1	29·4	30·7
Perim	14·6	13·3	14·6	16·2	21·0	20·2
Aden	—	—	—	—	—	—
Basra	37·3	37·7	37·7	37·6	38·0	30·9
Bahrein	29·9	25·6	31·2	31·9	32·3	25·3
Muscat	20·1	16·4	23·7	25·0	25·2	23·4

TABLE IX

MEAN MONTHLY RAINFALL (in inches)

	<i>Jan.</i> ins.	<i>Feb.</i> ins.	<i>Mar.</i> ins.	<i>April.</i> ins.	<i>May.</i> ins.	<i>June.</i> ins.
Jiddah	0·94	—	—	—	—	—
Perim	0·43	0·35	0·35	—	0·35	—
Aden	0·27	0·23	0·74	0·25	0·17	0·04
San'ā	0·004	0·19	2·71	1·54	2·73	0·0
Basra	1·17	1·05	1·09	0·48	0·46	—
Bahrein	0·37	0·59	0·38	0·17	0·10	—
Muscat	1·06	0·78	0·76	0·11	—	0·15

TABLE VII (*continued*)

ABSOLUTE MINIMUM TEMPERATURE

<i>July.</i> ° F.	<i>Aug.</i> ° F.	<i>Sept.</i> ° F.	<i>Oct.</i> ° F.	<i>Nov.</i> ° F.	<i>Dec.</i> ° F.	
77.5	79.0	75.9	74.3	65.3	61.2	Jiddah (3 yrs.).
76.6	73.0	75.9	75.6	73.2	65.5	Perim.
70.0	69.0	72.0	70.0	68.0	64.0	Aden.
52.0	49.5	45.3	42.3	—	—	San'ā.
70.7	68.7	59.7	52.5	35.7	29.9	Basra.
76.8	79.3	74.4	55.9	52.9	43.0	Bahrein.
77.3	77.1	77.3	74.7	67.1	63.5	Muscat.

TABLE VIII (*continued*)

MONTHLY RANGE OF TEMPERATURE

<i>July.</i> ° F.	<i>Aug.</i> ° F.	<i>Sept.</i> ° F.	<i>Oct.</i> ° F.	<i>Nov.</i> ° F.	<i>Dec.</i> ° F.	
22.9	19.8	23.8	22.2	24.5	25.8	Jiddah.
20.0	22.4	18.9	16.4	15.2	13.8	Perim.
—	—	—	—	—	—	Aden.
32.3	33.8	39.8	39.8	40.3	33.5	Basra.
22.7	23.3	24.3	26.1	28.4	28.7	Bahrein.
21.4	20.1	19.1	21.7	20.4	17.5	Muscat.

TABLE IX (*continued*)

MEAN MONTHLY RAINFALL (in inches)

<i>July.</i> ins.	<i>Aug.</i> ins.	<i>Sept.</i> ins.	<i>Oct.</i> ins.	<i>Nov.</i> ins.	<i>Dec.</i> ins.	
—	—	—	—	1.61	0.59	Jiddah.
0.2	0.47	—	0.04	0.04	0.08	Perim.
0.04	0.13	0.12	0.01	0.13	0.13	Aden.
6.3	4.0	0.28	0.0	—	—	San'ā.
—	—	0.19	0.08	0.89	0.82	Basra.
—	—	—	0.01	0.04	0.81	Bahrein.
0.02	—	—	0.07	0.35	0.62	Muscat.

TABLE X

DAYS WITH RAIN

			<i>Jan.</i>	<i>Feb.</i>	<i>Mar.</i>	<i>April.</i>	<i>May.</i>	<i>June.</i>
Jiddah (3 yrs.)			3·0	0·7	1·0	0·3	0·3	—
Perim			0·9	1·2	0·8	0·0	0·3	0·0
Aden			1·0	0·4	0·9	0·5	0·4	0·1
San'ā			1·0	6·0	13·0	10·0	12·0	0·0
Basra			2·6	2·5	2·1	1·5	1·2	—
Bahrein			0·9	1·7	1·1	0·9	0·2	—
Muscat			1·8	1·6	1·9	0·4	—	0·2

TABLE XI

RELATIVE HUMIDITY (Mean of Day)

			<i>Jan.</i>	<i>Feb.</i>	<i>Mar.</i>	<i>April.</i>	<i>May.</i>	<i>June.</i>
Jiddah			63	66	67	72	71	68
Perim			77	77	77	78	77	73
Aden			76	77	77	74	74	71
San'ā			43	51	64	63	53	40
Basra *			79	76	71	66	61	58
Bahrein			80	80	78	74	68	66
Muscat			68	69	68	59	59	64

TABLE XII

CLOUD (0-10)

			<i>Jan.</i>	<i>Feb.</i>	<i>Mar.</i>	<i>April.</i>	<i>May.</i>	<i>June.</i>
Jiddah			4·2	2·1	2·2	1·1	1·8	0·9
Perim			2·6	2·8	2·4	1·9	2·3	2·4
Aden			5·9	5·9	4·9	3·6	3·3	3·2
San'ā			0·1	1·3	2·5	3·1	3·2	1·9
Basra			3·6	3·4	3·9	2·7	2·6	0·1
Bahrein			2·4	1·8	1·8	1·0	0·9	0·2
Muscat			2·8	2·3	2·3	1·1	0·7	1·8

* 8 a.m. only.

TABLE X (*continued*)

DAYS WITH RAIN

<i>July.</i>	<i>Aug.</i>	<i>Sept.</i>	<i>Oct.</i>	<i>Nov.</i>	<i>Dec.</i>	
1.0	—	—	—	5.0	2.0	Jiddah (3 yrs.).
0.3	0.7	0.0	0.1	0.2	0.3	Perim.
0.0	0.2	0.2	0.0	0.4	0.6	Aden.
12.0	13.0	2.0	0.0	—	—	San'ā.
—	—	0.3	0.2	1.8	2.5	Basra.
—	—	—	0.1	0.3	1.7	Bahrein.
0.1	—	—	0.1	0.8	1.3	Muscat.

TABLE XI (*continued*)

RELATIVE HUMIDITY (Mean of Day)

<i>July.</i>	<i>Aug.</i>	<i>Sept.</i>	<i>Oct.</i>	<i>Nov.</i>	<i>Dec.</i>	
62	64	75	74	67	62	Jiddah.
65	68	74	70	71	75	Perim.
71	73	75	70	72	74	Aden.
61	58	43	39	—	—	San'ā.
59	59	62	68	71	79	Basra.
68	74	74	77	79	82	Bahrein.
75	81	75	66	66	68	Muscat.

TABLE XII (*continued*)

CLOUD (0-10)

<i>July.</i>	<i>Aug.</i>	<i>Sept.</i>	<i>Oct.</i>	<i>Nov.</i>	<i>Dec.</i>	
1.5	1.6	1.9	1.6	3.3	2.7	Jiddah.
2.8	3.2	3.0	1.5	2.2	2.3	Perim.
3.4	3.7	3.9	2.3	3.3	4.7	Aden.
5.8	3.9	1.2	0.3	—	—	San'ā.
0.1	0.2	0.5	1.9	2.2	3.5	Basra.
0.1	0.4	0.1	0.3	0.5	2.4	Bahrein.
3.2	2.8	1.1	0.6	1.5	2.5	Muscat.

TABLE XIII

WINDS.—PERCENTAGE OF OBSERVATIONS

JANUARY										
	N.	NE.	E.	SE.	S.	SW.	W.	NW.	C.	
Jiddah . . .	58.3	6.7	2.6	0.4	9.7	5.2	4.5	11.5	1.1	
Perim . . .	0.7	4.7	31.3	49.4	9.0	0.7	0.9	2.4	0.9	
Aden . . .	1.7	23.4	41.0	21.0	3.7	1.7	0.2	0.4	6.9	
San'ā . . .	19.4	1.4	—	7.0	29.2	15.2	8.3	16.6	2.8	
Basra . . .	30.3	—	0.7	4.3	24.0	3.8	11.0	17.3	8.6	
Bahrein . . .	12.9	3.3	4.2	6.2	10.0	3.7	23.6	34.4	1.7	
Muscat . . .	0.9	1.2	1.2	6.1	2.3	10.3	7.6	30.8	39.6	
FEBRUARY										
	N.	NE.	E.	SE.	S.	SW.	W.	NW.	C.	
Jiddah . . .	58.1	3.9	0.8	1.2	6.7	5.9	2.8	19.4	1.2	
Perim . . .	2.2	4.3	28.5	45.4	8.5	2.4	1.7	4.4	2.6	
Aden . . .	1.0	25.7	45.0	16.1	4.5	1.5	0.4	0.2	5.6	
San'ā . . .	14.3	4.2	6.5	25.0	37.0	2.4	—	10.7	—	
Basra . . .	24.2	1.0	2.6	2.6	24.2	7.2	12.9	15.5	9.8	
Bahrein . . .	19.3	5.1	4.1	9.6	6.9	3.2	15.6	32.1	4.1	
Muscat . . .	2.6	0.7	2.3	7.5	1.3	7.5	7.2	36.3	34.6	
MARCH										
	N.	NE.	E.	SE.	S.	SW.	W.	NW.	C.	
Jiddah . . .	47.1	—	0.8	1.7	8.8	6.7	5.0	28.6	1.3	
Perim . . .	1.8	3.0	25.3	45.7	11.5	2.8	3.4	5.2	1.3	
Aden . . .	1.2	27.0	45.8	12.2	5.0	1.7	0.6	0.5	6.0	
San'ā . . .	8.3	3.8	1.7	26.6	33.9	3.3	6.6	15.5	—	
Basra . . .	26.3	3.7	0.9	7.4	23.9	2.8	7.8	11.1	16.1	
Bahrein . . .	19.7	9.7	8.2	9.7	8.2	7.8	13.7	21.9	1.1	
Muscat . . .	3.3	2.5	2.5	11.5	—	2.5	4.4	33.1	40.2	
APRIL										
	N.	NE.	E.	SE.	S.	SW.	W.	NW.	C.	
Jiddah . . .	28.0	3.4	0.8	0.8	6.3	5.9	8.4	44.3	2.1	
Perim . . .	2.4	0.5	21.2	52.6	12.3	1.2	3.4	5.5	0.9	
Aden . . .	0.8	25.0	45.5	8.2	5.7	5.5	1.3	1.7	6.3	
San'ā . . .	4.4	3.9	6.6	23.9	39.4	2.2	3.9	13.3	2.2	
Basra . . .	40.5	2.9	1.3	3.0	19.4	5.9	9.7	9.3	8.0	
Bahrein . . .	16.7	8.2	8.9	7.4	8.6	8.9	16.0	24.9	0.4	
Muscat . . .	5.4	4.0	1.7	16.9	1.4	2.8	4.8	35.9	27.1	

TABLE XIII (*continued*)

WINDS.—PERCENTAGE OF OBSERVATIONS

MAY

	N.	NE.	E.	SE.	S.	SW.	W.	NW.	C.
Jiddah . .	35.4	5.8	1.1	1.1	6.2	9.1	7.3	31.8	2.2
Perim . .	2.8	3.9	23.1	34.7	11.1	2.7	9.8	10.0	1.9
Aden . .	1.3	17.2	25.7	13.7	17.4	12.3	2.6	1.1	8.7
San'ā . .	29.6	1.6	2.2	18.1	29.1	3.3	2.2	12.6	1.1
Basra . .	32.3	2.0	1.6	3.7	13.7	3.2	13.7	14.5	15.3
Bahrein . .	20.1	10.3	6.1	2.7	1.9	4.9	20.1	33.5	0.4
Muscat . .	5.9	2.8	3.3	14.0	0.8	1.5	7.3	30.5	33.6

JUNE

	N.	NE.	E.	SE.	S.	SW.	W.	NW.	C.
Jiddah . .	38.9	2.2	—	—	1.1	2.8	3.9	50.5	0.6
Perim . .	4.9	8.7	8.7	10.0	4.9	8.4	16.1	35.6	2.7
Aden . .	0.5	5.0	6.7	18.0	36.6	26.2	1.9	0.1	5.0
San'ā . .	35.5	14.5	4.6	7.0	30.8	1.7	—	5.8	—
Basra . .	44.5	0.5	1.0	1.4	3.8	1.4	16.3	28.2	2.9
Bahrein . .	20.6	2.7	2.7	1.5	1.2	1.9	22.1	46.9	0.4
Muscat . .	7.0	1.3	5.4	24.8	0.5	0.3	5.7	30.5	24.5

JULY

	N.	NE.	E.	SE.	S.	SW.	W.	NW.	C.
Jiddah . .	33.9	1.1	—	—	0.5	7.0	7.0	50.5	—
Perim . .	4.9	4.0	5.3	4.3	1.4	13.7	20.5	43.7	2.2
Aden . .	0.0	1.3	3.7	22.3	38.5	28.5	1.2	0.3	4.2
San'ā . .	19.4	6.6	9.0	8.0	34.4	6.6	1.6	5.5	9.0
Basra . .	36.9	1.4	1.4	1.8	4.6	3.2	19.3	26.3	5.1
Bahrein . .	15.7	2.4	3.1	2.7	2.0	6.7	22.7	43.1	1.6
Muscat . .	3.0	2.3	7.8	38.7	—	0.5	2.5	13.8	31.4

AUGUST

	N.	NE.	E.	SE.	S.	SW.	W.	NW.	C.
Jiddah . .	37.7	—	—	—	1.6	6.4	9.1	44.1	1.1
Perim . .	6.1	6.9	6.4	6.5	2.0	10.9	20.4	38.9	1.9
Aden . .	0.2	2.5	4.3	22.4	38.4	24.0	1.4	0.2	6.8
San'ā . .	8.1	27.7	15.8	7.0	27.7	5.4	0.5	—	7.6
Basra . .	19.3	1.6	1.6	2.2	7.0	11.3	26.3	23.7	7.0
Bahrein . .	16.1	6.0	8.2	9.0	5.6	7.1	18.0	29.2	0.8
Muscat . .	3.5	1.2	11.5	42.4	1.5	—	0.5	4.0	35.4

TABLE XIII (*continued*)

WINDS.—PERCENTAGE OF OBSERVATIONS

SEPTEMBER										
	N.	NE.	E.	SE.	S.	SW.	W.	NW.	C.	
Jiddah	22.9	0.6	—	—	5.6	5.0	15.1	50.8	—	
Perim	4.8	15.6	17.1	21.0	6.3	5.1	7.2	21.4	1.5	
Aden	1.0	8.5	15.1	20.0	25.3	17.7	2.0	0.8	10.0	
San'ā	5.2	40.7	12.2	0.6	18.6	3.5	—	3.0	16.2	
Basra	21.8	0.7	2.0	2.7	4.1	12.9	35.4	11.6	8.8	
Bahrein	21.6	3.4	10.3	5.5	3.8	7.2	17.4	28.1	2.7	
Muscat	6.4	2.1	8.2	26.7	1.3	0.3	1.6	17.7	35.7	
OCTOBER										
	N.	NE.	E.	SE.	S.	SW.	W.	NW.	C.	
Jiddah	21.0	2.7	1.6	0.5	11.3	14.5	20.4	26.4	1.6	
Perim	0.1	5.0	21.1	58.0	14.0	0.2	0.3	0.6	0.7	
Aden	1.1	21.5	34.0	14.2	11.8	7.0	1.4	1.0	8.0	
San'ā	12.3	19.0	18.0	2.2	5.5	1.1	5.5	5.5	31.1	
Basra	25.3	2.8	1.1	3.8	10.4	3.3	26.4	8.8	18.1	
Bahrein	17.4	10.9	6.8	4.8	3.7	4.4	19.1	32.6	0.3	
Muscat	2.5	2.5	2.5	16.9	1.2	1.0	7.5	22.9	43.0	
NOVEMBER										
	N.	NE.	E.	SE.	S.	SW.	W.	NW.	C.	
Jiddah	39.9	6.2	4.5	3.3	4.9	9.1	7.4	23.5	1.2	
Perim	0.5	4.5	26.9	54.6	12.3	0.7	0.2	0.1	0.2	
Aden	0.7	24.1	42.3	15.0	6.7	2.2	0.8	0.6	7.6	
San'ā	—	—	—	—	—	—	—	—	—	
Basra	18.9	1.7	1.1	8.9	16.1	2.8	22.8	15.5	12.2	
Bahrein	15.5	3.8	5.8	8.2	9.3	4.8	21.7	28.5	2.4	
Muscat	1.3	0.5	0.8	9.4	1.3	6.2	7.0	28.3	45.2	
DECEMBER										
	N.	NE.	E.	SE.	S.	SW.	W.	NW.	C.	
Jiddah	47.3	3.9	6.5	0.7	11.8	11.1	6.5	10.8	1.4	
Perim	0.1	4.3	29.8	49.5	14.1	0.6	0.6	0.6	0.4	
Aden	1.1	24.4	42.4	18.4	5.1	1.0	0.4	0.2	7.0	
San'ā	—	—	—	—	—	—	—	—	—	
Basra	17.0	1.5	1.5	6.3	14.5	5.8	23.3	20.9	9.2	
Bahrein	12.8	3.4	4.4	5.4	7.4	3.4	24.7	37.2	1.3	
Muscat	0.8	1.0	1.5	3.2	1.2	10.4	8.7	28.0	45.2	

CHAPTER V

HYGIENE AND DISEASE

ALTHOUGH the long coast-line of Arabia possesses, relatively, few harbours, those of Yambo' el-Bahr, Jiddah, Hodeidah, Aden, Muscat, and Koweit are important as gateways through which diseases may, and do, enter the country, as they may also arrive by land routes. Borne by ship or caravan, by man, beast, insect, or plant, infections must be watched for and checked at every inlet. The resident population is small for the size of the country, and many of the tribes are nomadic (see vol. I, pp. 18 ff.). The great moving population of pilgrims and traders renders the practice of hygiene difficult in Arabia, and diseases due to cholera germs, typhoid bacilli, and insect parasites follow their track.

Dwellers or sojourners in the land have to contend against local conditions such as heat, storms, winds, sand-tempests, &c. ; against attacks by wild animals, or injury from snakes and scorpions ; against unfamiliar plants, bearing strong and sharp thorns, which may be poisonous or otherwise hurtful. Diseases such as cholera, enteric fevers, or dysentery, as well as intestinal and other parasites, may lurk in contaminated food or water ; malaria, filaria, typhus, &c., are inoculated by bites of mosquitoes, lice, or other arthropods ; and man spreads among his fellows venereal diseases, ringworm, and other parasites. Against all the above-mentioned evils, and many others to be presently noticed, the individual, be he soldier, sailor, pilgrim, or ordinary traveller, as well as the medical and sanitary officer, must exercise eternal watchfulness and must wage eternal war.

General Hygiene. Hygiene is an inclusive term for the science which concerns itself with the preservation of health, and it need hardly be said that, generally speaking, the healthy, cared-for body guided by a healthy mind is less likely to suffer from the effects of climatic conditions and less likely to contract disease than one which is unwisely clothed, fed, or worked, and which suffers from want of cleanliness.

This general proposition explains, unfortunately no more than vaguely and in part, why it is that one man may harbour the germs

of cholera and certain other diseases, taking no harm himself but being a possible danger to others whose power of resistance is not on a similar level.

The individual for whose use this Handbook is issued will probably be able to find medical or surgical aid in time of trouble ; but for the general care of the body and its functions every one must be held personally responsible ; and the brief directions contained in this chapter will, if followed, keep men out of hospital. Where medical treatment of diseased conditions is described, it is with a view to render help in emergencies and when medical aid is not available.

Meteorological Conditions. In a region where, as in Arabia, the range of temperature is generally high (see above, Chap. IV, Table I, p. 346 f.), the effects of heat must be considered. The nights are often cold and in some parts, during the winter months, very cold. There is no regular 'rainy season' to temper the hot weather, and in most parts of the country the rainfall is scanty and irregular. In the north what rains there are occur during the winter months ; in the south slight rain falls during summer and autumn, while in the Yemen mountains there may be considerable rain during the spring and summer months. In many of the desert areas rain rarely falls. In some parts the night dews are heavy (see Vol. I, p. 16 f.). In such a climate the European must defend himself against the direct heat of the sun and also against variations of temperature.

Heat will bring about illness *directly* and *indirectly*. Directly, as in the case of sudden 'sun fever' or sun-stroke ; indirectly, as in heat syncope or heat suffocation. Long-continued exposure to great heat may also cause insidious blood changes and anaemia. A hot, dry atmosphere is, as a rule, better tolerated than a hot and damp atmosphere. It is desirable to avoid, if possible, the direct rays of the sun between 9 a.m. and 4 p.m. ; but when work has to be done in the open the head, neck, and spine must be protected by suitable helmets and by means of a pad fixed into the coat. The effects of heat are again referred to in a later section. The body must not be suddenly chilled, and, where the relative temperature varies from day to night through many degrees, warm clothing and blankets should be available for use as required.

Fauna injurious to man. As regards geographical distribution along lines laid down by Wallace, Arabia, north of the Tropic of Cancer, is included (with Asia and Africa north of the Sahara) in the Palaearctic division, while that part of the country south of the 'tropic' comes within the Ethiopian region. Besides the flies, mosquitoes, fleas, worms, &c., mentioned in connexion with various

diseases, there are other creatures injurious to man, either directly, or indirectly as parasites or as carriers of disease germs. Of these only brief lists can be given.

To the former class belong the poisonous snakes. The following kinds are found in Arabia :

Cobras, vipers, *Echis coloratus*, *Bitis arietans*, *Cerastes cornutus*, *Pseudocerastes* sp. ?, *Atractaspis* sp. ?; and the seas that wash the coasts contain poisonous species of *Hydrophinae*, which might be mistaken for eels by careless or ignorant persons. *Dryophidae* (whip-snakes) are generally supposed to be harmless; but two species found in the S. and SW. are poisonous (Bury). The teeth in *Dryophis* are set far back, and venom can only be injected into captured prey. Man, unless careless, has little to fear.

FLIES. In addition to common species resembling the house-fly, a species of *Glossina*, *Gl. tachinoides*, is found in SW. Arabia; fortunately it does not carry or convey the sleeping-sickness infection.

MOSQUITOES. The following Culicine or Anopheline mosquitoes may be carriers of disease germs :

Culex fatigans (*quinquefasciatus*)—dengue and diseases due to *Filaria Bancrofti*, elephantiasis, chyluria, &c.

Anopheles maculipennis—filaria and malaria.

A. (Myzorhynchus) sinensis (var. ?)—filaria and malaria.

A. (M.) Rossi—filaria.

A. (M.) funestus—filaria and malaria.

Mansonia titillans and *M. uniformis*—filaria.

Anopheles Wellcomei (Aden); *A. squamosus*, S. and SW.; *A. Pharoensis*.

The following species are known to convey the *Plasmodium* of malaria and may exist on the coastal regions of Arabia :

Anopheles (Myzorhynchus) Listoni, *A. (M.) culicifacies*, *A. (M.) barbirostris*, *A. (Neo-cellia) Stephensi*, *A. (N.) Willmorii*, *A. (Nyssorhynchus) Theobaldi*, and *A. (Ny.) fuliginosus*.

FLEAS, which do or may convey the bacillus of plague or cause injury :

Xenopsylla cheopis (tropical rat flea); plague.

Ceratophyllus fasciatus (cosmopolitan rat flea); plague.

Dermatophilus penetrans (the 'Jigger' or 'Chigoe' flea).

BUGS, *Cimex rotundatus*, suspected carrier of *Leishmania*, and probably typhus, leprosy, and relapsing fever.

LICE, *Pediculus humanus (vestimentii)*, conveyer of typhus infection and possibly of other disease germs.

TICKS, *Argas Persicus* (fowl tick), though not known to carry any germs hurtful to man, is such a pest along the Persian Gulf that it has been known to compel people to quit their houses.

Ornithodoros Savignyi conveys the spirochaetes of relapsing fever ; *Ixodes ricinus*, very common in Arabia, is responsible for diseases due to *Piroplasma*.

CRUSTACEANS. Various species of *Cyclops*, which carry the larval forms of the guinea-worm.

MOLLUSCA. Species of *Katayama*, *Bullinus*, and *Planorbis* are known as hosts for cercaria of *Bilharzia* (*Schistosomum*) *haematobia*, and several kinds of *Limnaea* harbour the larva of ' flukes '.

Our knowledge of the arthropods and worms, &c., of Arabia is very small. It is to be hoped that travellers and civil and military officials will collect new or rare species and send them to England.

GENERAL HYGIENE AND SOME COMMON DISEASES

Within the last forty years the true causes of many infective diseases have been discovered and proved, and many new methods have been devised to safeguard the health of men suddenly exposed to the risk of tropical diseases. Malaria, yellow fever, cholera, typhoid, typhus, plague, are at the present time so well understood, and the precautions to be taken against them have been so far worked out, that a man need not be greatly afraid of them—if only he will be careful.

But, of course, he must not only be careful to obey the ordinary rules for the avoidance of infection ; he must also be careful to keep himself thoroughly fit and up to the mark. If he impairs his health by any bad habit or excess, or by any neglect of himself, his natural power of resistance becomes less. Proper diet and clothing, avoidance of chill, attention to the teeth and the skin and the bowels, all are of great importance to him. Men ought to be encouraged to believe that, if only they will be careful, they can really do a great deal to protect themselves from infection. For the fear of disease may get more hold on a man than the fear of dying in action. ' Losses in action and losses by disease ', says Lieut.-Col. Melville, ' are very different things. . . . Disease takes the heart out of men in a way that mere death on the battlefield does not.'

Our present knowledge of the causes of the infective diseases comes from the work of Pasteur (1822-95) and his followers. It was Pasteur who discovered and proved that the infective diseases are distinct species of microscopic germs, multiplying in the body,

and brewing their distinctive poisons in it. He discovered how to isolate the germs of this or that disease, and how to grow them in 'pure culture', outside the living body, miles away from a patient, all by themselves, in sterilized broth or on sterilized jelly, in a flask or a test-tube. From this discovery came the whole series of discoveries, how to bring down, point by point, the virulence of a pure culture, and how to render man, or animals, immune against this or that disease, by treating them with graduated doses of germs at low virulence, or of dead germs, or of the distinctive poisons brewed by germs.

For example: sheep and cattle are protected against anthrax by graduated doses of anthrax-germs at low virulence. Man is protected against typhoid by graduated doses of dead typhoid-germs. These protective substances go by the name of vaccines, because of their analogy with ordinary vaccination against small-pox.

Antitoxins differ from vaccines, since animals are used in the preparation of antitoxins. For example: diphtheria. If a horse be treated with graduated doses of the poison brewed by diphtheria-germs in pure culture, the horse becomes in time immune against diphtheria. Its blood, fighting the poison, the 'toxin', manufactures the 'antitoxin', the natural antidote to the toxin. If the serum, the clear part of the blood of this horse, be administered to a child with diphtheria, it will reinforce the antitoxin which the child's own blood is manufacturing, and in this way will help the child to pull through. It can also be used, not only to cure a child already attacked by diphtheria, but to immunize a child that has been exposed to diphtheria.

As it is with diphtheria-antitoxin, so it is with tetanus-antitoxin. The germs of tetanus (lockjaw) live in the surface-soil: in dust, gravel, earth, and especially in soil heavily manured. If a horse be gradually immunized against tetanus, its blood is able to immunize a man, or another horse, against the disease. In places where the surface-soil is badly infected with tetanus, a man receiving a wound, with particles of mud or earth in it, ought certainly to be thus protected as soon as possible after the injury. The method is used also to protect valuable horses, either after a wound or before some operation of veterinary surgery.

These two discoveries of a protective and curative serum for diphtheria and tetanus have saved thousands of lives. Vaccination against the *Enterica* bacilli has also proved of great value.

Pasteur's work, also, inspired Lister (1827-1912) to study the true causes of wound-infection, and to discover the antiseptic treatment of wounds. Lister's first use of carbolic acid, to

'destroy the germs of putrefaction' in a compound fracture, was in 1865, at the Royal Glasgow Infirmary. But the discovery guided men of science to the present knowledge of the transmission of diseases, from animal to animal, or from animal to man, or from man to man, by insects. We know, now, that rat-fleas convey plague from rats to man; tsetse-flies convey sleeping-sickness, lice and ticks and bugs convey relapsing fever, lice convey typhus, sand-flies convey sand-fly fever, bugs may convey leprosy, and mosquitoes (*Anopheles* or *Culex* or *Stegomyia*) convey malaria, dengue and yellow fever. Just as the dog is the intermediate host of a common tapeworm between man and man, and the fresh-water snail, in Egypt, is the intermediate host of *Bilharzia*, so the *Anopheles* mosquito carries malaria, and the *Stegomyia* mosquito yellow fever. And as the tapeworm has two alternating cycles of life, one in the dog and the other in man, so the germs of malaria have two alternating cycles of life—two elaborate and amazing states of existence—one in the stomach of the mosquito, the other in the blood of man.

Our present knowledge of the ways of transmission of infective diseases has vastly increased our power of protecting ourselves against them. We have left off thinking that they can 'come of themselves'; we have left off calling them 'putrid exhalations' or *miasmata*, as if they were no more avoidable than the climate or the weather; we know that they are due to definite living germs, and that we cannot have the diseases unless we get the germs into us under conditions which suit them.

But, of course, if a man is careless of himself, or if he is 'run down' by some previous illness, or by exposure, or from intemperance, or over-fatigue, then the germs take the advantage which he offers to them.

General Rules of Health.

Food. In ordinary civilian life in the tropics a man requires less meat and less fats than he usually takes in this country. But no hard-and-fast rule applies. Many of the natives of the tropics are in a state of chronic starvation; but the folly of intentionally placing white men in the same condition is apparent. The comparative immunity of Englishmen to the infectious diseases that decimate the natives of Asia is due, in part, at least, to their being better fed on nitrogenous food. Still, rice and vegetables are a valuable adjunct to meat-rations, but they must be well cooked, and freshly cooked, not kept from over-night. No uncooked vegetables must be eaten; and fruits must not be eaten uncooked

unless they are peeled, or very thoroughly washed, for they are likely to be contaminated with dust, or with handling. When obtained from local sources, they are very apt to convey disease, since irrigating waters may be infected, while the oriental gardener uses human excrement as a fertilizer. Therefore, all native vegetables should be cooked, and such fruits as the water-melon should never be eaten at all in a cholera district (see further p. 366). Fruits, handled by unclean natives, should be plunged for an instant in boiling salt water before peeling and eating. This does not injure the ordinary thick-skinned varieties, and greatly diminishes the risk of disease from this source.

In the choice of rations, care must be taken that they can be easily carried, easily divided and distributed, and easily and quickly cooked. They must include a sufficient supply of salt, which is needed for health in tropical countries. Cheese, bolted, is hard to digest; but cheese thoroughly masticated and eaten slowly, and not too much at a time, is excellent food. Chocolate also is excellent food, but may tend to make a man thirsty. Good bacon is one of the best of all foods, but unless it be tinned it does not keep very well in the tropics. Tinned foods, of a good brand, may keep for a year in the tropics, but are not to be trusted after that. When the contents of a tin go bad, they tend to produce gases which bulge the tin, and give it a resonant note when it is tapped. Some firms have a trick of puncturing these 'blown tins', reheating the contents, and resoldering the tins. No blown or twice-soldered tins should be used for food.

For extra rations, for a body of men exhausted by hard work, Lt.-Col. Melville says, 'In my opinion, the demands imposed by increased exertion should be met by the special addition to the food-stuff of some foodstuff which needs the minimum of preparation, to which the soldier is unaccustomed, and which will possess therefore the advantage of novelty. It is not much satisfaction to a man who has lived on tinned beef and biscuit for a fortnight, when he arrives very tired at the end of a long day's march, to be presented with an extra half-tin of the former and four more of the latter. The thing which really counts is not how much food the man receives from the supply authorities, but the amount of that food which he can turn to useful purpose.'

It goes without saying that any food left exposed to flies is thereby exposed to infection.

Diet should be varied and fresh meat, &c., preferred to tinned articles. 'Do not eat much, but eat many things; there is safety in variety, danger in monotony.' (Duclaux.)

Drink. If we arrange in order the sources of water-supply, from the safest to the most dangerous, the list is as follows : Spring water, deep-well water, upland surface-water, stored rain-water, ordinary surface-water from cultivated lands, river-water to which sewage gains access, shallow-well water. Certainly there is such a thing as pure drinking-water. But natives in the tropics have so many ways of polluting the surface-soil and the water-supply, that the only sure protection against water-borne cholera or typhoid is to have all drinking-water boiled, or chemically treated, or both. Filters, mostly, are troublesome things, and easily get clogged. If the water be turbid, it must be filtered or strained *before*, not *after*, boiling. Drinking-water ought to be not merely heated, but really boiled for five minutes ; and it is essential to see for oneself that this is done, as natives cannot be trusted to carry out instructions which they consider unnecessary. In places where the water is very unpalatable, it is best taken, when in camp, in the form of hot tea ; and, even when travelling light, a 'thermos-flask' does not take up much room and would add to one's comfort, especially on night-marches. The flat taste of cold boiled water may be improved by shaking up the water, in a corked bottle, with fresh air ; or by the use of a 'sparklet' bottle. And, of course, clean water, if it be stored in unclean flasks, ceases to be clean water.

No alcoholic drinks of any kind should be taken between meals, or while a man is at work during the heat of the day. Probably a very small amount of stimulant, taken with the evening meal, helps digestion, or at any rate does not harm a man.

Other Precautions. All clothing must be light and loose, and the utmost care should be taken of the skin of the feet. For protection against chill, a 'cholera-belt' will be found useful at night. For protection against sunstroke, the cap or sun-helmet should have a red or orange lining, and a three-inch strip or pad of stuff of the same colour should be sewn inside the shirt, to cover the spine. For protection against disorders of the stomach and bowels, such as may lower a man's resistance to this or that infection, the mouth and the teeth must be kept very clean : and the best mouth-wash is weak carbolic lotion, about 1 in 200. For smoking, a pipe is better than cigarettes.

Against malaria, a man can protect himself, not only with a mosquito-net, but with preventive doses of quinine—5 grains daily, or 10 to 15 grains twice a week, while he is in a very 'malarial' district. 'If for any reason', says Manson, 'quinine is not tolerated, that individual is unsuitable for residence in tropical countries.' Tasteless quinine can be taken by most people.

SHORT NOTES ON SOME TROPICAL DISEASES

Many tropical diseases need not be described, as they do not occur in Arabia. Yellow fever, sleeping sickness, beri-beri, kala-azar, do not occur. Plague has visited Arabian ports from time to time, but does not become endemic as a rule. The non-tropical diseases, such as scarlet fever, diphtheria, and the venereal diseases, are much the same in Arabia as in our own country.

Some of the diseases in the following list are rare in Arabia, but are not unknown, and therefore have been included in the list.

Boils. This troublesome complaint is common enough everywhere, but may be especially troublesome to white men in tropical countries. It is a localized infection of the skin, not a 'blood-disease', and the infection is spread, by the discharge from a boil, to neighbouring points of the skin. Boils should not be poulticed, but should be dressed with antiseptic lotions; and the surrounding skin must be kept scrupulously clean. A boil just forming may sometimes be cut short by an incision, getting three or four drops of pure carbolic acid *well* into it with a finely-sharpened piece of wood.

Chiggers. These are not unknown on the shore of the Persian Gulf, and are due to sand-fleas, which are insects like ordinary fleas, but rather smaller. The female burrows into the skin of any creature that it finds, and there becomes distended with blood and eggs, forming an inflamed swelling about the size of a pea. When the eggs have been expelled, there remains a little sore, which may ulcerate. To avoid 'chiggers', avoid walking barefoot, and bathe and examine the feet from time to time. If a black dot, or a little rounded swelling, be found, generally under a nail, the right treatment is to get it out whole, with a sharp clean needle; some natives are very expert at this. The spot, after treatment, must be properly dressed.

Cholera. The 'comma bacillus', the distinctive sign of the disease, was discovered in Egypt, by Koch, in 1883; but there are many varieties or strains of this germ. The incubation-period of the disease may be only a few hours, or may be so much as ten days, but the usual period is from 3 to 6 days. Protection against cholera, in the presence of an epidemic, includes (1) immediate and strict enforcement of rules of sanitation, and isolation of cases and of suspected cases; (2) the use of Haffkine's protective vaccine; (3) the quiet unremitting care of each man for his own personal health. On this last point, Manson writes as follows:

'During cholera epidemics, great care should be exercised to preserve the general health; at the same time, anything like panic

or apprehension must be sedulously discouraged. Fatigue, chill, excess—particularly dietetic or alcoholic excess—are to be carefully avoided. Visits to cholera districts should be postponed if possible, seeing that the new-comer is specially liable to contract the disease. Unripe fruit, over-ripe fruit, 'shell-fish,' food in a state of decomposition, and everything tending to upset the digestive organs and to cause intestinal catarrh, are dangerous. Melons, cucumbers, and the like, deserve the evil reputation they have acquired. Purgatives—particularly saline purgatives—unless very specially indicated, should never be taken at these times. All drinking-water, and all water in which dishes and everything used in the preparation and serving of food are washed, should be boiled.¹ Filters—except perhaps the Pasteur-Chamberland filter—are not for the most part to be relied on; in many instances they are more likely to contaminate the water passed through them than to purify it.

'All food should be protected from flies.

'Diarrhoea occurring during cholera epidemics should be promptly and vigorously treated. During cholera epidemics it is customary to establish dépôts where sedative and astringent remedies for the treatment of diarrhoea are dispensed gratuitously. Experience seems to encourage the belief that by such means incipient cholera may be aborted during the stage of premonitory diarrhoea. Of the various drugs used with this view, chlorodyne and brandy are the most popular. Whether true cholera can be cut short in this way or not, it is certainly in the highest degree advisable at such a time to neglect no case of diarrhoea, but to insist on rest, warmth, and the greatest prudence in feeding, in all cases of intestinal catarrh or irritation.'

Warmth, stimulants, sips of iced water or soda-water, gentle friction, morphia, the use of large intravenous or subcutaneous injections of saline fluid, and the giving of permanganate of potassium, are the chief lines of the treatment of cholera. All food should be withheld while the disease is active; and the return to ordinary food must be very gradually and carefully managed. The average mortality is about 50 per cent. of the cases. Patients after recovery may still carry the germs in their bodies, and pass

¹ The *Journal of the R.A.M.C.*, ii, 1914, contains a review of a lecture, by an Austrian doctor, on his experiences in Adrianople during the Balkan War of 1912. 'He was agreeably surprised, on accepting an invitation to dine with a Bulgarian artillery regiment, to find all the dishes served up piping hot, the bread steaming, and all the plates dipped in boiling water before being placed on the table. The colonel explained that he had taken these steps since one of his officers had succumbed to cholera.'

them, in their discharges, for so long as fifty days after the attack ; but this is not usual. All discharges from cholera patients must be immediately burned, and all linen immediately disinfected. Every possible precaution must be taken, even after convalescence, to prevent contamination of table-utensils, water, or food. The patient may become a 'carrier'.

Dengue (dandy, or breakbone fever). A fever lasting a week or ten days, with a measly rash and severe rheumatic pains in bones and joints. The usual incubation-period is from one to three days. The onset is usually sudden. For the first two days, the face and eyes are suffused, and the whole body may be flushed ; temperature 103 to 105 or even 106° F. ; and the patient suffers much pain in limbs and loins, and feels very ill. For the next two or three days he feels fairly comfortable, and may even want to be up and about ; this change, from the first to the second stage of the fever, is usually marked by a sweating, or a nose-bleeding, or a loose action of the bowels. Finally, comes a slight transient return of fever, with a branny rash, somewhat like measles ; it usually starts on the hands and forearms, spreads over the trunk, and is followed by slightly scurfy desquamation. The mortality of dengue, among healthy men, is *nil* ; but it may leave a man 'run down' for some time.

There is evidence that it is conveyed by mosquitoes (*Culex*). The germ has not yet been discovered.

There is no way of cutting short the fever, and no specific treatment. Neither quinine, nor stimulants, are of any advantage. Induce free perspiration. The best protective measure is the use of a mosquito-net.

Diarrhoeal disorders are common in Arabia. This word 'diarrhoea' is merely Greek for a flux or flowing-through ; it does not necessarily imply any specific disease ; and a mere looseness of the bowels for a day may be nothing more than Nature's way of getting rid of some unwholesome article of diet. In Arabia, diarrhoeal disorders are among the most frequent of maladies.

These epidemic diarrhoeas are true infective diseases, conveyed in food or drink ; the summer diarrhoea of children, for example, is not merely 'too many plums', but a result of infected food or milk ; flies doubtless help to spread the infection.

Accordingly, the precautions against epidemic diarrhoea are similar to the precautions against cholera (see p. 365).

Dysentery. An infection, mostly water-borne, of the mucous membrane of the large intestine, giving rise to pain, griping, frequent desire to go to stool, and the passage of frequent small stools

containing slime, or slime and blood. The suffering is sometimes intense. As the disease goes on, the bowel tends to become ulcerated. In some cases, dysentery is followed by relapses, or by chronic dysentery, or by abscess of the liver.

Three principal factors are at work in a case of dysentery : (1) the preliminary influences—such as chill, bad food, purgatives, intestinal worms, and intemperance—which lower the natural resistance of the large intestine to infection ; (2) the actual invasion of the intestine by the germs of the disease ; (3) the subsequent invasion of the intestine by the ordinary germs of suppuration, which tend to form ulcers.

There are two chief types or forms of dysentery. In the one, the intestine is invaded by bacteria ; in the other, by protozoa. We call the one, bacillary dysentery ; and the other, amoebic dysentery. The two forms may co-exist in this or that case, as it were by chance, but the distinction is none the less valid. Bacillary dysentery is epidemic dysentery ; it occurs in all latitudes. Amoebic dysentery is endemic rather than epidemic ; it occurs only in warm climates, or in the warm season of temperate climates.

Amoebic dysentery mostly commences insidiously, without marked fever ; it is generally subacute or chronic in its course ; it is apt to recur or relapse ; it is often associated with congestion of the liver, and sometimes causes abscess of the liver. It rapidly improves under treatment with ipecacuanha, or, better still, with emetine, which is the alkaloid of ipecacuanha. If emetine is not available saturated solution of sulphate of magnesia with Tt. opii ℥xv to each ounce is very useful. Dose : one teaspoonful every half-hour for 2 hours ; then every 2 hours.

Bacillary (epidemic) dysentery is mostly acute in character, often with initial fever ; it runs its course, and if properly treated is not apt to relapse. It is cured by emetine ; and good results have been obtained with a specific antitoxin. We owe the discovery of this antitoxin to Shiga, a Japanese man of science, who also discovered the most common bacillus, *Dysenteria Shiga*.

Protection against dysentery mostly consists in securing a pure water-supply ; in the avoidance of all 'predisposing causes' ; in correcting either constipation or diarrhoea ; in the isolation of cases and of suspects ; and in careful sanitation, especially regarding the disposal of foecal matter and the keeping down of flies. Where a great number of persons live in close proximity, dysentery is very readily spread.

Guinea-worm (*Dracunculus*) is not unknown in Arabian coast towns. This worm, like many other parasitic worms, has two

cycles of life, one in man, the other in a very minute crustacean, a 'fresh-water flea' (*Cyclops*), which is found in wells and water-holes. If this minute creature gets into the drinking-water, the embryo worms are set free in the stomach, and one or more of them may finally make its way to the surface of the body, just under the skin. Here the female worm may grow many inches long, so that it looks like a piece of string under the skin. It pierces the skin at one point, and discharges its young into water (when the skin is bathed in water),—hoping, as it were, that the water may contain *Cyclops*, which will give the young worms a start in life!

Thus, the only risk is in the drinking of unboiled or unstrained water, with a live *Cyclops* in it, containing the live young of the worm. There are well-devised ways of dealing with the adult worm under the skin.

Leprosy, a very slowly-progressive disease, gradually affecting the skin and the fibrous tissues, or the nerves, and finally leading to severe disfigurement. The actual germs of leprosy were discovered by Hansen, in 1874. They have some resemblance to the germs of tubercle; and there are points of resemblance between the two diseases. It is not fully known how the disease is acquired; but there is some evidence that it may be conveyed by bugs. The old fear of lepers was exaggerated; a man may live and work among them for years, and take no harm.

Malaria. The cause of malaria is a protozoal organism, which was discovered, in 1880, in the blood of a malarial patient by Laveran, a French army surgeon. In 1894, Manson, after his discovery that the mosquito is the intermediate host of filarial disease, advanced a similar theory of malaria—that the mosquito is its intermediate host between man and man. In 1898, Ross, after three years' work, proved the truth of this theory. During 1899–1901, 'malaria expeditions', from our own country and from Germany, were incessantly going out to the tropics; Italy also was hard at work. Crucial experiments were made by men on themselves, in India, Italy, New York, and London. Two of these many experiments may be recalled here:—

(1) In 1900, a wooden hut was set up in the Roman Campagna, in a water-logged jungly bit of the district, intensely malarial, a place 'where the permanent inhabitants all suffer from malarial disease, and where the farm-labourers, who come from healthy parts of Italy to reap the harvest, after a short time all contract fever'. The hut was made mosquito-proof with netting and fine wire screens. In this mosquito-proof hut, Dr. Low, Dr. Sambon, and others lived for about three months—all through the 'malaria

season'; they protected their faces and hands with veils and gloves; they took no quinine; they simply kept off the mosquitoes; and not one of them had a touch of malaria.

(2) In 1900 also, mosquitoes fed on a case of 'benign tertian' fever in a hospital in Rome were consigned, by the British Embassy, to the London School of Tropical Medicine; and two persons there let themselves be bitten by them. In each case, malaria showed itself; and their blood was found to contain the very same type of the malarial germs which was in the blood of the patient in Rome.

Malaria is, in fact, mosquitoes; not all mosquitoes, but certain species of the genus *Anopheles*. The germs of the disease pass through two very complex and wonderful series of changes, one in the blood of man, the other in the stomach of the mosquito. Kill all mosquitoes and you include *Anopheles*.

Ever since 1900, the work has been to keep down malaria by keeping down *Anopheles*. The female lays its eggs on stagnant water—pools and puddles, ditchwater, marshes, sluggish streams, uncovered wells and cisterns, and chance collections of rain-water. Therefore, the larger surfaces of water are filmed with kerosene, so that the larvae cannot breathe; puddles are swept out, ditches are drained and set running, tanks and waterbutts are covered, and the surface-soil is tidied and cleared of all the rubbish that catches rain-water. The breaking-up of the haunts of *Anopheles* is the breaking-up of malaria. In Greece and Italy, Egypt, Africa, India, and above all in the Panama zone, the reduction of malaria by simple measures of this kind has been recorded.¹ But where a considerable portion of the native population have malaria in their blood—the children, especially, are likely to have it—and where sanitation is hardly known, the risk of malaria to white men who are new to the country is great.

Dr. Bagshawe, Director of the Tropical Diseases Bureau, writing of the African tropics, says:

'Always use a mosquito net. This may seem a counsel of perfection. On the one hand, the claims of campaigning may make it appear difficult to carry such an article in one's kit, and on the other hand there are places where a net seems, to one unversed in tropical hygiene, unnecessary; moreover, in the hotter districts it is unpleasant. To this the reply may be made: A net need not weigh much, and will pack into small compass; and except on high levels—say 8,000 ft. or more—there is always risk that a few malaria-carrying mosquitoes may be present, though unobserved, and bite

¹ *Sanitation in Panama*, Genl. Gorgas, U.S.A. Medical Service.

the unprotected sleeper. The net protects the user from the mosquitoes which convey malaria and filarial blood-worms, as well as from snakes and ticks. Native servants will find a way of fixing it up in camp, and this must be done before dark. The edges should be tucked under the mattress, not allowed to hang down to the ground. Care should be taken to kill any mosquitoes which enter with the sleeper, and to prevent any part of the body resting against the net, which should always be stretched tight. When holes appear, which they are sure to do, the tissue surrounding the hole should be caught up and tied round with string, so as to close the aperture completely. A net with holes is nothing but a mosquito-trap. The careful and intelligent use of a mosquito-net is the first essential of health in Tropical Africa.'

Other protective measures are : (1) the choice of a dry camping-ground, at a fairly high level, free from stagnant waters, and at least a mosquito's flight away—say a quarter or half a mile—from a native village ; (2) special care, in the evening, to protect face, hands, and ankles against mosquitoes ; (3) the use of quinine as a *protective* drug. Note, that quinine is not a mere ' tonic ' : it has a direct specific action on the *Plasmodium malariae*, such as salvarsan has on the *spirochaetes* of syphilis.

Blackwater fever, which used to be regarded either as a rare form of malaria, or as a result of too much quinine, is now held to be a separate disease, due to a special infection, or possibly a parasitized *Plasmodium*, but usually occurring in old malarial cases. It may lie latent in a man, till fatigue, or chill, or perhaps an unusual dose of quinine, makes it flare up. The onset, in most cases, is sudden, with shivering and pain, and a high temperature ; the skin may be jaundiced ; and the urine is dark-red or almost black, due to the presence of altered blood.

Ophthalmia. This general word is used of all forms of inflammation of the surface of the eye. In all tropical countries, neglect of cleanliness and sanitation makes ophthalmia terribly common, especially among the children. Dust and dirt and the glare of the sun favour infection ; and flies carry it on their feet from case to case. In *gonorrhoeal ophthalmia*, a man may convey the germs of gonorrhoea to his eyes by rubbing them with unwashed fingers.

Oriental Sore (' Aleppo boil ', ' Baghdad boil ', ' Delhi boil '). A localized infection of one or more points of skin, causing a very indolent ulcer. The germs which cause it resemble those of a constitutional disease of the tropics, called *kala-azar* ; and belong to the genus *Leishmania*. Moreover, it is undoubtedly conveyed by a biting insect. | Dr. Wenyon, who made experiments with it on

himself in Mesopotamia, has proved that the germs cannot find their way through unbitten or unbroken skin. The sore is troublesome and unsightly rather than painful or dangerous. Protection is afforded by care of the skin, attention to abrasions, avoidance of direct contagion, and avoidance of vermin.

Plague hardly needs to be considered here ; for there has been no epidemic in Arabia for many years, and certainly there is none now. The cause of plague, the *Bacillus pestis*, was discovered by Kitasato and Yersin, in 1894, during the epidemic in Hong Kong. The disease is common to rats and man, and is conveyed, by rat-fleas, from the rat to the man. The possibility of other ways of transmission cannot be absolutely excluded ; and the 'pneumonic' type of plague is highly infectious, direct from man to man. It should be watched for at the various ports, and the passage of rats from ships to shore should be prevented.

In time of plague in a district, the use of Haffkine's protective vaccine is of very great value : but, of course, the first line of defence consists in the utmost strictness of sanitation, quarantine, isolation, care of food-stuffs, destruction of rats, &c.

Prickly Heat (*Lichen tropicus*). A fine, close-set, extensive, papular and vesicular rash, causing intense itching. It is generally thought to be a direct result of heat and sweating. Scratching may further infect the skin and cause boils. In some cases the eruption may last for many weeks, now better, now worse. Anything causing perspiration may make it worse. With cooler weather, it disappears of itself. Preparations such as lanolin, glycerine of borax, 'glycola,' and dusting-powder, give relief. The use of strong soaps should be avoided. Scrubb's Ammonia in the bath gives relief.

Relapsing Fever (louse fever, African tick fever, famine fever, *Spirillosis*). A widely distributed fever, occurring among crowded communities especially when ill-fed, due to germs which from their spiral outline are called spirilla or spirochaetes. It is distinguished by rapid onset, rapid subsidence after a few days, and recurrence a few days later. It may recur many times. The germs are transmitted by body vermin. Relapsing fever is a very old disease : it is clearly described by Hippocrates (fifth century A.D.). The germs were discovered by Obermeier in 1873. The transmission by ticks was discovered, about 1904, by Philip Ross and Milne in Uganda, and Dutton and Todd on the Congo. The transmission by lice was discovered by Mackie, Nicolle, and others, about 1907. In Egypt, Algiers, Europe, and India, either lice or bugs are the offenders.

Quinine has no appreciable influence on relapsing fever. From the likeness of the spirochaetes of relapsing fever to the spirochaetes

of syphilis—not that the two diseases have any sort of common origin—Ehrlich's discovery of salvarsan for syphilis was tried for the treatment of relapsing fever, with excellent results.

Protection against body vermin is protection against relapsing fever. The clothing next the skin must be carefully searched, especially at the seams, and must be boiled or ironed, or dabbed with kerosene, as occasion may require. A mosquito net can keep out bugs and ticks. A bed well off the ground, with string soaked in kerosene wound round its feet, and pyrethrum powder or Keating's powder dusted inside the sheets, is good protection: and a light at night is also useful. Infested persons and places—rest-houses of caravans and native huts—must be avoided.

Sand-fly Fever (phlebotomus fever, three days' fever, Chitral fever). Sand-flies are very minute, delicate, long-legged, yellowish or brownish midges. They are to be found in most tropical and sub-tropical countries: genus *Phlebotomus*, and many species. They hatch out on damp surfaces, such as the walls of cellars and latrines and crevices of damp earth. They convey a fever (germs not discovered) which lasts only three or four days. The incubation period varies from one to six days; the onset is sudden, there are no complications, and the mortality is *nil*. Sand-flies can pass through the meshes of a mosquito net. It is said that a bright light, by attracting the flies, affords some protection at night.

Effects of Heat. It is generally held that the conditions which are called sunstroke, heat-stroke, &c., may be classified under three principal forms, but of course they do not absolutely exclude each other:

(1) 'Heat-exhaustion.' A man in perfect health, suitably clothed, or half-stripped, and not overworked, can stand, as we all know, exposure to very great heat: for example, glass-blowers, sugar-boilers, and stokers. But a man over-fatigued, or with health impaired by malaria or intemperance or any other bad influence, may faint from exposure to heat, either in the sun or in the shade. In a simple faint from heat-exhaustion a man lies quiet, with face pale, skin chilly, pulse weak, breathing soft (not noisy), temperature not raised; he may soon come round, perhaps with a very bad headache. The treatment of these cases must be gently stimulant, not depressing; no violent cold douching.

(2) 'Siriasis.' This Greek word for 'sunstroke' has come into use again for what seems to be truly a tropical disease. Manson defines it as an acute disease, developing in the presence of high atmospheric temperature, and characterized by sudden very high fever, coma, and intense congestion of the lungs. 'It is not met

with on the high seas, although it is well known on ships in the narrow, land-locked Red Sea and the Persian Gulf.'

It may have premonitory symptoms, as danger signals—lassitude, headache, intolerance of light, irritability of the bladder; then comes restlessness or wild delirium, which very rapidly is followed by complete unconsciousness; face suffused, breathing noisy, pulse very quick, skin burning hot, and temperature rushing up to a height which may prove fatal within a few hours. For these cases the most urgent immediate treatment is cold douching, cold pack, or ice pack, till the temperature is down to 102, but not longer; then a warm blanket, and perhaps stimulants, but not strychnine. Quinine must be given if the patient has had malaria. If the breathing threatens to stop, artificial respiration should be done. Bleeding will relieve the severe congestion.

(3) In a third, ill defined, group of cases it seems that certain rays of the light of the sun have a direct effect on the tissues, and may even cause, in some cases, meningitis. The symptoms are those of meningitis, or what is vaguely called 'brain fever'; and the treatment is on the lines of the treatment of meningitis: absolute quiet in a cool, darkened room; the head shaved, and kept cool; bromides, light diet, no stimulants.

Enteric Fevers (which include typhoid and the paratyphoid fevers). The germs of typhoid fever were discovered in 1880-1. The first use of protective 'inoculation' in this country was made by Sir Almroth Wright and Sir David Semple, at Netley Hospital, in 1896. Regarding the value of this treatment in the present war, the figures given in January 1916 were as follows:

Among our Expeditionary Force in France and Belgium about 95 per cent. have been protected against typhoid fever; the annual average being about 90 per cent.

The annual admission ratio per 1,000 is more than nine times greater among the non-protected than among the protected. Among the non-protected it is 9.1 per 1,000. Among the protected it is 1 per 1,000. The death-rate is thirty-one times greater. Among the non-protected it is 1.84 per 1,000. Among the protected it is 0.06 per 1,000.

Typhoid fever, among a large body of men, may be spread by flies, settling first on typhoid discharges and then on food or milk. Also patients recovered from typhoid may still carry the germs inside them, and pass them in their discharges, and convey them on soiled fingers. No such person should be employed on the preparation or serving of food to troops till careful microscopic examination of his discharges has proved that he is not a 'typhoid-carrier'. In

the presence of typhoid it is impossible to be too clean, or too careful over all measures of sanitation.

There are two kinds of paratyphoid germs, called A and B. The methods of spreading, and the risk of carriers, and the precautions against infection, are the same in paratyphoid as in typhoid. Paratyphoid A fever is milder in type than either typhoid or paratyphoid B fever and is common in the East.

Typhus Fever. Sir William Jenner, about 1850, proved that typhoid and typhus are two wholly different diseases. Typhus is conveyed by lice, and cannot spread in clean and wholesome surroundings. Note that the Germans use the word *typhus* for what we in this country call *typhoid* and *Fleck-typhus* for *typhus*.

Undulant Fever (Mediterranean fever) is more common in Arabian seaports than is generally supposed. It is due to a specific microbe which occurs in greatest abundance in the milk of infected goats. All risk of this fever may be prevented by the avoidance of raw goat's milk.

Small-pox. Endemic, and sometimes there are severe outbreaks. Every one ought to have been vaccinated against small-pox within three or four years of coming to Arabia.

Venereal Diseases. Both syphilis and gonorrhoea are common. Syphilis does not seem to be of a specially virulent kind in Arabia, as it is in some parts of Africa. Remember that syphilis can be and is spread by the saliva. Chancres on the lips may be produced from smoking the water-pipe (*arkilah*). This pipe has only one stem, and perhaps as many as ten or twelve people smoke from the same mouthpiece, one after the other. It is not a clean habit, and there is certainly a danger of getting a chancre on the lips. Such pipes are very nice to smoke if you have your own mouthpiece.

Pyorrhoea alveolaris, or serious inflammation of the gums, is very common in Arabia. The inflammation is caused by microbes which infect the mouth. It is common in Arabia because of the terrible amount of dust. The gums become swollen and very red, and the breath becomes foul. An antiseptic mouth-wash—boracic acid, or carbolic acid 1 in 100—ought to be used, or the disease becomes very difficult to treat and many teeth may be lost.

Parasitic Worms. (1) Guinea-worm. Fairly common in some coast towns of Arabia. Natives try to drag the worm out of their feet by rolling the worm, as it protrudes through the skin, round a stick, very slowly; but this is not a good way, as the worm is likely to break, and then myriads of young escape and a severe inflammation is set up. Douching the part with water will very often bring the whole worm out. But the best way is to inject a solution of cor-

rosive sublimate, 1 in 1,000, into the body of the worm when she protrudes. *Prevention*: heating the water to 100° F., or adding a little bicarbonate of potash to it, kills off the embryo worms. But again—Don't drink unboiled water. (2) *Bilharzia* is sometimes found in Arabia. This is a small fluke-like worm, which, if swallowed, makes its way to the bladder and sets up inflammation, and the patient passes a good deal of blood in his urine. Those who never drink unboiled water will never suffer from this disease. It is probable that the young worm sometimes enters the skin while persons are bathing. (3) *Ascaris lumbricoides*, the common round worm, is very prevalent throughout the country. The treatment is a dose of santonin. (4) Tapeworm also is prevalent. The usual form is the *Taenia echinococcus* of the dog; and its cystic form, the hydatid cyst, is by no means rare. *Prevention*: boil all water, and never eat uncooked vegetables—lettuce, celery, &c.—as the ova, passed by the dog, are not killed by the sun, and quickly mature if they get into water or into the stomach. (5) 'Hook-worm' disease, due to *Ankylostoma duodenalis*, has probably been introduced by pilgrims from Egypt and India. It would only thrive in damp ground near wells and bathing-places.

Kat Neuroses. A diseased condition peculiar to S. and SW. Arabia (Yemen, &c.), among those who chew 'Kat' leaves habitually and in excess. The signs are: loss of memory, irritability, general weakness, and constipation. These symptoms may also appear when the 'Kat'-chewer is suddenly deprived of the stimulant. If the condition is not too far advanced it is curable. 'Kat' is the product of *Catha (Kat) edulis*.

CHAPTER VI
VOCABULARIES
AND PHRASES

VOCABULARIES AND PHRASES

PRONUNCIATION

Consonants. ' = a slight stop, as in the middle of the compound word *sea-eagle*

' = a weak aspirate pronounced in the throat

dh like *th* in *this*

gh a guttural *r*

h a strong aspirate

kh like *ch* in *loch*

q a guttural *k*

r to be distinctly pronounced

s emphatic *s*

t emphatic *t*

th as in *thing*

z emphatic *z*

zh like the *s* in *pleasure*

Other consonants pronounced as in English.

*Vowels.*¹ a pronounced as *a* in *about*

ā as in *far*

e as in *get*

e (Turkish) as *e* in *father*

é (Turkish) as in *met*

i as in *hit*

ī as *ee* in *seen*

o as in *go*

ō as *u* in *fun*

u as in *pull*

ū as *oo* in *pool*

ū as *u* in *tu*

*Diphthongs.*¹ ai pronounced as *i* in *mind*

au as *ou* in *out*

¹ For Arabic words in the present chapter the vowels *e*, *o*, and *ō*, and the diphthong *ei* (see p. 467 f.), are not employed.

A. VOCABULARIES

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
able, to be	qadar	tawānistan	bilmék
I can	aqdir	mī-tawānam	bilirim
about (ap- proximately)	taqrīban	taqrīban, kam-wa-pīsh	ashāghi-yuqāri
above	fauq	bar bālā-yi, bālā-yi	yuqāri-da
abroad	fil-bilād al- khārijīyah	dar khārij	dishāri-da
abuse (v.)	shatam, yash- tum	fuḥsh dādan, deh or la'n kardan, kun	süymék
accidentally	khaṭa'an	sahvan	qazā-rā, qazā olaraq
accompany, I accompany	ṣāḥab, uṣāḥib	hamrāh raftan, hamrāh mī- ravam	réfāqat étmék, bérābér géli- orim
admiral	amīr al-baḥr	daryā-begi, amīr-i-baḥr	amirāl, qapu- dān pasha
Admiralty	Nazārat al- baḥriyah	wazārat-i- baḥriyeh	Bahriyé qa- pusu
adrift	'ā'iman	rū-yi-āb	suyun aqin- tése-ilé
advanced guard	muqaddamat al-askar	muqaddame- yi-lashkar	pishdār
aeroplane	ṭaiyārah (pl. ṭaiyārāt)	ṭaiyāreh	taiyāré
afloat	ṭā'if	bālā-yi-āb	yüziyor
aft	mu'akhhkar as-safinah		qich
after	ba'd	ba'd az	-soñra (<i>suffix</i>)
afternoon	ba'd az-zuhr	ba'd-az-zuhr	ikindi

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
ahead	quddām	pīsh, jilau	iléri-da, ün-da
alive	haiy	zindeh	sāgh
all	kull	hameh, jamī'	hép
allowed, to be	jāz, yajūz an	rukhsat yāftan, braqilmaq	
ally	ḥalīf (<i>pl. ḥu-lafā</i>)	yāb muttaḥid, muḥālīf	muttafiq
almost	taqrīban	taqrīban	az qalde, hé-man-héman
alone	waḥīdan	tanhā	yaliniz
alongside	bi-jānib	pahlū	yanena, ya-nenda, borda bordaya
already	qad (<i>followed by verb</i>)	qabl az in	shimdi bilé, zātan
although	ma'a inna	agarcheh	eyerché
altogether	jamī'an	tamāman, bi-jumlagī	bitün bitün
always	dā'iman	hamisheh	dā'imā, hér zémān
ammunition	dhakhīrah	zakhīre-yi-jang	jébhāné
ammunition-wagon	'arabīyat adh-dhakhīrah	'arābe-yi-jubbekhāneh	jébhāné-'ara-base
anchor (<i>n.</i>)	marsa (<i>pl. marāsi</i>)	langar	démir
and	wa	u or wa	ve
angry	ghadhbān	khishmnāk	darghen
ankle	ka'b (<i>dual. ka'bain</i>)	qūzaq	topuq
answer (<i>v.</i>)	ajāb, yujīb	jawāb dādan, deh	jevāb vérmék
anvil	sindān	sindān	urs
anywhere	fi aiy makān	har jā bāshad	hér nérédé
appoint	'aiyan, yu'aiyin	ta'yin kardan, kun	ta'yin étmék
approach	taqarrab ila, yataqarrab ila	nazdīk āma-dan, āi	yanashmaq

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
April	Nisān	Nisān	Nisān
Arab	‘Arabī (<i>pl.</i> ‘Arab)	‘Arabī, Tāzī	‘Arab
Arabia	Bilād al-‘Arab	‘Arabistān	‘Arabistān
arm (<i>n.</i>)	<u>dhirā’</u>	bāzū (<i>upper</i>), sā’id (<i>lower</i>)	qōl
armed	musallah	musallah	silāhli
armour	dir’	zireh	zirh
arms	asliḥah	asliḥeh	silāh
army	jaish (<i>pl.</i> ju- yūsh)	lashkar	ordu, ‘askér
army corps	fīrqah (<i>pl.</i> fīraq)	urdū	ordu
arrange	rattab, yurat- tib	tartīb dādan, deh <i>or</i> ārā- stan, ārā	qararlashder- maq, tértīb étmék
arrest (<i>v.</i>)	waqqaf, yuwaqqif	tauqif kardan, kun	tévqif étmék
arrive	waṣal, yaṣil	rasīdan, ras	vārmaq, gél- mék
artillery	madāfi’	tūp-khāneh	tōplar
ashes	ramād	khākistar	kūl
ashore	‘ala’l-barr	bar zamīn	qaraya, qarada
ask	sa’al, yas’al	pursīdan, purs	sormaq
I ask	as’al	mī-pursam	sorarem
thou askest	tas’al	mī-pursī	sorarsin
he asks	yas’al	mī-pursad	sorar
we ask	nas’al	mī-pursīm	sorariz
you ask	tas’alūn	mī-pursīd	sorarsiniz
they ask	yas’alūn	mī-pursand	sorarlar
I shall ask	sa-as’al	khāham pursīd	sorajaghm
I asked	sa’alt	pursīdam	sordum
ass	ḥimār (<i>pl.</i> ḥamīr)	khār, ulāgh	éshék
astern	khalf	‘aqab, dar pai	arqasena, ar- denda

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
at	‘ala, bi, fi	nazd, dar	-a, -da (<i>suffix</i>)
at least	‘ala’l-aqall	aqallan	hîch olmaz issé
at most	‘ala’l-akthar	muntahāsh	én nihāyét, ‘ala’l-éksér
at once	fil-hāl	hālā, fauran	birdén biré
attack (<i>n.</i>)	hujūm	hujūm	hujūm
attack (<i>v.</i>)	hajam ‘ala, yahjum ‘ala	hujūm kardan, kun	hujūm étmék
August	Āb	Āb, Murdād	Aghostos
Austria	Nimsā	Namseh	Némsé
Austrian	Nimsāwi	Namsāwī	Avstriale, Ném- séle
autumn	kharīf	khizān	son bahār
avenge	intaqam, yan- taqim <i>or</i> akhadh ath- thār, ya’kh- udh ath-thār	intiqām kashī- dan, kash	intiqām étmék
axe	fa’s (<i>pl.</i> fu’ūs)	tabar	balta
axle	miḥwar	miḥwar	mīl
bad	radī	bad	fenā
baggage	matā’, ‘afsh	asbāb-i-safar	éshyā
bake	khabaz, yakh- biz	pukhtan, paz <i>or</i> biryān kar- dan, kun	furunda pishir- mék
bale (<i>n.</i>)	bālah	basteh, bār	bālya
ballast	ṣabūrat al- markab	pārsang	safra, kum
bandage (<i>n.</i>)	rubāṭ	‘iṣābeh	sārghe
bank (of river)	shāṭi	kināreh	sū kénāre, irmaq kénāre
barley	sha‘īr	jau	arpa
barometer	mīzān at-ṭaqs	mīzān-i-hawā	havā-térazisi, barometro
barracks	qishlah	qishleh, sar- bāz-khāneh	qishla

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
barrel (of a gun)	umbüb	lüle-yi-tufang	tuféng démiri
barricade	maḥajar	sangar	métris
basket	safaṭ	sapad, zambıl	sépéd
baths	ḥammām	ḥammām	hammām
battalion	ṭābūr	ṭābūr	tābūr
battery	baṭariyah	baṭariyeh	tābiyé (fortress) batāriya (movable)
battle	waq'ah	jang	muhārébé
battleship	mudarra'ah	jahāz- (or kashtī) i-jangī	harb séfinése
bay	khalij	khalij	körféz
bayonet	ḥarbah	sar-naizeh	süngü
beach	shāṭi	sāhil, kināreh	yale kénāre, déniz kénāre
beacon	fanār, manārah	nishān-i-ātashī	fanār
beans	fül	lūbiyā, bāqilā	baqla, fas-sulya
beard	lihyah	rish	saqāl
bearing	jihah		jihét
beat (v.)	dharab, yadh-rib	kūtak zadan, zan	vurmaq
beautiful	jamīl	khushnumā, khūb	güzél
because	li'anna	zīrā, chirā ki	zīrā
bed	farshah	takht-i-khāb	yatāq
bedroom	ḥujrat al-ma-nām	ūtāq-i-khāb	yatāq odase
beef	lahm baqar	gūsht-i-gāu	üküz éte, segher éte
beer	birah	āb-i-jau	arpa suyu, bira
beet	shawandar	chughundar	panjar
before (time)	qabl	qabl az	-dan évvél (suffix)
before (place)	quddām	qabl az	önendé (suffix)
begin	ibtada, yab-tadi	āghāz kardan, kun or shurū' kardan, kun	bashlamaq

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
behind	warā, 'aqab	pusht, pai	ard, arqa
believe	i'taqad, ya'taqid	bāvar kardan, kun	inanmaq
below	taht	zīr	alt, altenda
bend (<i>v.</i>)	hana, yahni	kham kardan, kun	eyrimék
berth	firāsh	jā-yi-khāb	yatāq
besiege	hāṣar, yuḥāṣir	muḥāṣareh kardan, kun	muḥāséré ét- mék, qushat- maq
betray	ghadar, yaghdīr	khiyānat kardan, kun	kheyānét étmék
better, best	aḥsan	behtar, behtarīn	daha · éyi, én éyi, én ala
between	bain	mā bain, dar miyān	ara-sinda
beyond	warā	ān ṭaraf-i-..., warā-yi...	üte-sinda
big	kabīr	buzurg	büyük
bigger, biggest	akbar	buzurgtar, buzurgtarīn	dahā büyük, én büyük
bill	ḥisāb	ḥisāb	hisāb
billet (<i>v.</i>)	askan, yuskin	jā dādan, deh	oturtmaq
bird	ṭair (<i>pl.</i> tuyūr)	murgh	qūsh
bit (of horse)	lijām	dahaneh, lijām	gém
bit (piece)	qit'ah	pāreh	pārcha
bitter	murr	talkh	aje
black	aswad	siyāh	qara, siyāh
blacksmith	ḥaddād	āhangar	démirji, na'al- band
blame (<i>v.</i>)	lām, yalūm <i>or</i> dhamm, ya- dhum	malāmat kardan, kun	qabāhat bul- maq, zém étmék
blanket	liḥāf	liḥāf, gilim	yorgan
bleed (<i>intrans.</i>)	nazaf, yanzif	khūn jāri shudan, shau	qanamaq

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
blind	a'ma (<i>pl.</i> 'umyān	kūr	kör
blockade (<i>n.</i>)	hiṣār	muḥāṣareh	abloqa, qushatma
blood	damm	khūn	qān
blow (<i>v.</i>)	habb, yahubb	nafkh kardan, kun <i>or</i> damī- dan, dam	ésmék
blow (<i>n.</i>)	dharbah	zarb, zakhm	wurush
blue	azraq	ābī, lājiward	māve, lājivérd
blunt	ghair ḥādd	kund	kör
boat	balam, qārib	zauraq, kashtī	sandal, qayiq
body	jism (<i>pl.</i> aj- sām)	tan	bédén, vujūd
boil (<i>trans.</i>)	aghla, yughli <i>or</i> fauwar, yu- fauwir	jūsh dādan, deh	qāinatmaq
boil (<i>intrans.</i>)	ghala, yaghli <i>or</i> fār, yafūr	jūshīdan, jūsh	qāinamaq
boiled rice	ruzz maṭbūkh	chilāu	pilaf
boiler	fauwārah	dīg-i-buzurg	qazan
bone	'azm (<i>pl.</i> 'izām)	ustukhān	kémik
book	kitāb (<i>pl.</i> ku- tub)	kitāb, nāmeḥ	kitāb
boot	jazmah	kafsh	chizmé, qundura
boot-lace	rabāṭat al- jazmah	kafsh-band	qundura
bottle	qārūrah (<i>pl.</i> qawārīr)	shisheh	qordélasi shīshé
bottom	qa'r	teh	dib
bow (of ship)	muqaddam al- markab	muqaddame- yi-kashtī	gémnin bashe
bowels	maṣārīn	rūdeh	baghersaq
box	ṣundūq (<i>pl.</i> ṣanādīq)	ṣandūq	sandūq, qutu
boy	walad (<i>pl.</i> au- lād)	pisar	oghlan, chojuq
brackish	mālīḥ	shūr	tuzlu

ARABIA II

B b

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
brave	shujā'	shujā', dilāwar yiyit, jesūr	
brazier	maṇqalah	manghal	manghal
bread	khubz	nān	ékmék
break	kassar, yukas-sir	shikastan, shikan	qirmaq
breakfast	fuṭūr	chai-i-ṣubḥ	qahwalte
breech (of gun)	madḥkhar al-bunduqīyah	teh	top kuyrugḥu, top qiche
breeze	nasīm	nasīm, bād	rüzgyār, yél
brick (burnt)	ṭābūqah	ājūr	tūla
brick (un-burnt)	libn	khisht	kérpich
bridge	qanṭarah (<i>pl.</i> qanāṭir) or jīsr (<i>pl.</i> jusūr)	jīsr, pul	küprü
bridge (of ship)	jīsr al-markab	pul-i-jahāz	
bridle (<i>v.</i>)	aljam, yuljim	lijām kardan, gém vurmaq kun	
brigade	liwā	fauj	liwā
bright	lāmi', mudhī	raushan	parlaq
bring	aḥdhar, yuḥ-dhir	āvurdan, ār	gétirmék
broad	'arīdh	pahn, 'arīz	génish
broadside	'urdh	shallīk	alabanda
broken	mukassar, munkasir	shikasteh	qiriq
brother	akh (<i>pl.</i> ikh-wān)	birādar	qardash
brown	asmar	gandumī	qahvé réngi, ésmér

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
brush (<i>n.</i>)	furshah	furcheh	fercha
bucket	dalw	saṭl, dūl	qogha
buffalo	jāmūs	gāvmīsh	manda
bug	baqq	sās, malleh	takhta-bit
bugle	būq	shaifūr	boru
build	bana, yabni	binā kardan, kun <i>or</i> 'amārat kardan, kun	yapmaq, binā étmék, qurmaq
bull	thaur	nar gau	bogha
bullet	raṣāsah (<i>pl.</i> raṣās)	gulūleh	qurshun
bullock	thaur makhṣī	nar-gāu	üküz
buoy	shamandarah	langar-gīr	shamandra
Bureau-de- Change	Dukkān aṣ-ṣar- rāf	Dukkān-i- ṣarrāf	Sarrāf dukyāne
burn (<i>trans.</i>)	aḥraq, yuhriq	sūkhtan, sūz	yaqmaq
burn (<i>intrans.</i>)	ishta'al, yash- ta'il	sūkhtan, sūz	yanmaq
bury	dafan, yadfun	dafn kardan, kun	gömék, défn étmék
bush	siyāj, 'irq	bīsheh	chāle
busy	mashghūl	mashghūl	méshghūl
but	walākin	lākin	ammā, lākin
butter	zibdah	kareh	saī-yaghe, téré yaghe
button (<i>n.</i>)	zirr (<i>pl.</i> azrār)	dukmeḥ	duymé
buy	ishtara, yash- tari	kharīdan, khar	saten almaq
by (near)	qarīb min, 'ind	nazdīk, pahlūi	yaninda, yaqenda
cabin	qamārah	qamāreh	qamara
cable	silk (<i>pl.</i> sulūk)	ṭanāf, ḥabl	qablo, khalāt, zinjir (<i>chain</i>)
cake	ka'k	kulīcheh	chörék, qora- biyé
calf	'ijl	gū sāleh	dana
call (summon)	nāda, yunādi	ṣadā kardan, kun	chaghermaq
call (cry out)	ṣāh, yaṣīh	faryād kardan, kun	baghermaq

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
calm (<i>n.</i>)	huduw	ārām	limanleq
calm (<i>adj.</i>)	hādi	ārām	limanleq
camel	jamal	shutur	dévé
camel driver	jammāl	shutur-bān	dévéji
camel (riding)	hajīn	shutur-i-sawāri	
camp (<i>n.</i>)	mu'askar, mukhaiyam	lashkargāh	chādir yére
can—			
I can	aqdir	mī-tawānam	bilirim
thou canst	taqdir	mī-tawānī	bilirsin
he can	yaqdir	mī-tawānad	bilir
we can	naqdir	mī-tawānīm	biliriz
you can	taqdirūn	mī-tawānid	bilirsiniz
they can	yaqdirūn	mī-tawānand	bilirler
I cannot	mā aqdir	namī-ta- wānam	qadir déyil im
can you ?	hal taqdirūn	mī-tawānid ?	bilir missiniz ?
canst thou ?	hal taqdir	mī-tawānī ?	bilir missin ?
canal	tur'ah	jū, nahr	qanāl
candle	shama' (<i>pl.</i> shumū')	shama'	mūm
canoe	zauraq		qayiq
canter (<i>v.</i>)	hadhab, yah- dhīb	yurgheh raftan, rau	rahvān gitmek
canvas	jimfās	kirbās	yélkén béze, yélkén
cap	tarbūsh	kulāh	fés, kaskét, shapqa
cape (promon- tory)	ra's jabal	ra's	burun
capstan	daulāb al-ḥabl	charkh-i- langar	bojorghat, ürgāt

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
captain (of ship)	qabtān <i>or</i> ra'is al-markab	nā-khudā, ra'is	re'is, gēmi suwārisi, qapudān
captain (military)	yūzbāshi	yūzbāshi	yūzbāshi
captive	asīr (<i>pl.</i> usarā)	asīr	esīr
capture (men)	assar, yu'assir	asīr giriftan, gīr	esīr almaq
capture (place)	qabadh 'ala, yaqbidh 'ala	giriftan, gīr	zabt étmék
caravan	qāfilah	kārawān, qāfileh	kyārvān
careful	mutaḥadhdhir	bā-ḥazar	diqqatli, gyuzu achiq
cargo	ḥiml	ḥaml	hamulé, yük
carpenter	najjār	najjār	doghramaji, marangos
carpet	bisāt	qālī, farsh	kilim, hāle
carry	ḥamal, yaḥmil	ḥaml kardan, kun <i>or</i> naql kardan, kun	tashemaq, gö-türmek, naql étmék
cart	'arabiyat an-naql	'arabeh	'araba, yük 'araba-si
cartridge	kharṭūshah (<i>pl.</i> kharṭūsh)	fishang	fishénk
cart-track	maslak (<i>pl.</i> masālik)	rāh-i-'arabī-yeh	'araba yolu
castle	qaṣr (<i>pl.</i> quṣūr)	burj, qal'ah	qal'a
cat	hirr (<i>fem.</i> hirrah)	gurbēh	kédi
catch	qabadh, yaq-bidh	giriftan, gīr	tutmaq, yaqa-lamaq
cattle	mawāshi	ḥaiwānāt	bahāim, hai-wānlar
cavalry	khail, khaiyālah	suwāreh	suwāri
cave	ghār	ghār	maghāra
cellar	sirdāb (<i>pl.</i> sa-rādīb)	sardāb	makhzén, qilar
cement	kils	sārūj	chimento

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
centre	markaz	markaz	mérkéz, orta
certainly	yaqīn	albatteh	élbétté, shühhésiz
chain	silsilah, zinjīr	zinjīr	zinjir
chair	kursī	sandalī, kursī	sandalīyé
channel	tur'ah	tang-i-daryā	boghaz
chart	kharīṭah	kharīṭeh, jad- wal	kharīta
cheap	rakhīṣ	arzān	ujūz
cheek	khadd	rukh	yanaq
cheerful	bashshāsh, masrūr	khush-hāl, masrūr	güler yüzlü
cheese	jubn	panīr	pénir
chicken	dujājah	jūjeh	piliş
chief (<i>n.</i>)	ra'īs, shaikh	khān	re'īs, bash
children	aulād, atfāl	bachagān, atfāl	evlād, chojūqlar
chin	<u>d</u> haqan	zanakhdān	chené
chisel	mibra	ishkaneh	qalém
choose	ikhtār, yakh- tār	guzīdan, guzīn <i>or</i> intikhāb kardan, kun	séchmék
Christmas	'Īd al-milād	'Īd-i-milād	Milād-i-'Īsa yortusu
church	kanīсах	kilisā	kilisé
circle	dā'irah	dā'ireh	dā'iré, yuvārlaq
clan	qabīlah (<i>pl.</i> qabā'il) <i>or</i> 'ashīrah (<i>pl.</i> 'ashā'ir)	qabīleh	qabilé, 'ashīrét
clean (<i>adj.</i>)	naẓīf	pāk	témiz
clean (<i>v.</i>)	nazzaf, yunaz- ẓif	pāk kardan, kun <i>or</i> tanzīf kardan, kun	témizlémék
clear	ṣāfi	ṣāf	achiq

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
cliff	jurf (<i>pl.</i> jur-fān)	partgāh	uchurum, qaya
clock	sā'ah	sā'at	sā'at
close (<i>v.</i>)	sadd, yasudd	bastan, band	qapamaq
cloud	ghaim (<i>pl.</i> ghuyūm)	abr	bulut
coal	fahm hajari	zughāl-i-sangī	kümür
coast	sāhil (<i>pl.</i> sawā-hil)	sāhil	déniz kénāre, sāhil
coffee	qahwah	qahweh	qahvé
cold (<i>in head</i>)	zūkām	zūkām, sarmā	nézlé
cold (<i>in chest</i>)	su'āl	surfeh	
cold (<i>temperature</i>)	bard	sarmā	soghūq
cold (<i>adj.</i>)	bārid	sard	soghūq
collar	yāqah, tauq	fukul, yākheh	yaqaliq, yaqa
collect	jama', yajma'	jam' kardan, kun	toplamaq
collision	muşādamah	taşādum	musādémé, chārpishma
colonel	mīrālai	sartīp	qāim-maqām (<i>lieut.-col.</i>), mīrālai (<i>full col.</i>)
colour	laun (<i>pl.</i> alwān)	rang	rénk
colours (<i>flag</i>)	a'lām	bairaq	bairaq, sanjaq, 'além
colt	muhr	kurreh	tāi
come	jā, yajī	āmadan, āi	gélmék
comfortable	mustarīh	rāhat	rāhat
command (<i>n.</i>)	amr (<i>pl.</i> awāmir)	farmān	émr, buyū-ruldu
commander	qamandān	sardār	qumandān
commerce	tijārah	tijārat	alish-vérish, tijārét
commission	wazīfah	ma'mūriyat	me'mūriyét

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
commodore	ra'is uşûl	daryā-begī	filo suvārisi, qumidor
communica- tion	muwāṣalah	muwāṣaleh	mukhābéré
companion	ṣāhib (<i>pl.</i> aṣ- hāb) <i>or</i> rāfiq (<i>pl.</i> rufaḳā)	rāfiq, hamrāh	arqadash
company	jamā'ah	gurūh	sürü
company (military)	bulūk	dasteh	bülük
compass	quṭb	qibleh numā	pussla
N.	shamāl	shamāl	shémāl, yıldız
N.E.	shamāl sharqi	shamāl-i- sharqī	shémāl-i- sharqi
E.	sharq	mashriq	sharq, gün doghusu
S.E.	janūb sharqi	janūb-i- sharqī	jénūb-i-sharq, këshishlémé
S.	janūb	janūb	jénūb, qibla
S.W.	janūb gharbi	janūb-i- gharbī	jénūb-i-gharb
W.	gharb	maghrib	gharb, gün bātese
N.W.	shamāl gharbi	shamāl-i- gharbī	shémāl-i- gharb, qara yél
complain	shaka, yashku	shikāyat kar- dan, kun <i>or</i> nālidan, nāl	shikyāyét ét- mék
condition (state)	hāl (<i>pl.</i> aḥwāl)	ḥālat	hāl
condition (stipulation)	shart (<i>pl.</i> shu- rūt)	shart	shart
confess	aqarr, yuqirr <i>or</i> i'taraf, ya'tarif	i'tirāf kardan, kun	i'tirāf étmék, iqrār étmék
Constanti- nople	Istāmbül	Istāmbül	Istambol
content	qāni'	qāni'	rāzi

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
contraband	mamnū'	qachaḡ, ma-mnū'	qachaḡ māl
convenient	munāsib	muwāfiq	münāsib
convoy (<i>n.</i>)	ghafar, khafārah	badraqah	qonboy, qoruma
cook (<i>n.</i>)	ṭabbākh	āsh-paz	āshji
cook (<i>v.</i>)	ṭabakh, yat-bukh	pukhtan, paz	pishirmék
cool	bārid	khunuk	soghūq
copy (<i>n.</i>)	nuskhah (<i>pl.</i> nusakh)	nuskheh	nuskha, sūrét
copy (<i>v.</i>)	nasakh, yansakh	istinsākh kardān, kun	sūrét chékmék, istinsākh ét-mék (writing)
cord	ḥabl	rismān	ip, qaitān
cork (<i>n.</i>)	sidādah (stopper), fillīn (substance)	sar-shisheh	tapa (in bottle), mantār (substance)
corn (cereal)	ḥubūb	gandum	boghdāi
corporal	ōnbāshi	wakīl	ōn-bāshi
cotton	quṭn	pambēh	pambūq
count (<i>v.</i>)	ḥasab, yaḥsub	shumurdan, shumār	sāimaq
country	bilād	mamlakat	mémlékét, watan
courageous	shujā'	dilīr	yiyyit, mutéjassir
course	jihah	jihat	gémīnīn yolu (ship's)
court-martial	ḥukm 'askari	divān-i-ḥarb	divān-i-ḥarb
cover (<i>v.</i>)	ghaṭṭa, yughaṭṭi	pūshīdan, pūsh	örtmék
cover, take	tawāra, yatawāra	panhān shudan, shau	sipér ālmaq, gizlémék
	or ikhtafa, yakhtafi		
cow	baqarah	gāu	inék
cowardly (<i>adj.</i>)	jabbān	tarsū	qorqāq
creek	khaliḡ	murdāb	qōi, boghaz

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
crew	mallāḥah	ahl-i-jihāz	gēmi tā'ifesi
crooked	a'waj	kaj	ēyri
crops	maḥṣūlāt	maḥṣūlāt	mahsūlāt
crowd (<i>n.</i>)	ziḥām	izdiḥām	qali-baliq
cruel	qāsi, ṣārim	bī-raḥm, zālim	zālim, ghaddār
cruise (<i>n.</i>)	safar	daryā-gardī	dolashmaq
cruiser	ṭarrād		kruasör
cultivation	zirā'ah, ḥirā-thah	ābādānī	zirā'at
cup	finjān	piyāleh, jām	kyāssé, finjān
current	jarayān	sail	aqinté
custom-house	gumruk	gumruk	gümruk
daily	yaumi	har-rūzeh	hér günkü
dam	sadd	sadd	sédd, bénd
damage	khisārah	zarar, ziyān	zarar
damp	raṭb	namnāk	némli
dangerous	mukhtir	khaṭarnāk	téhlikéli, qör-qülü
dark	muzlim	tārik	qaranleq
daughter	bint (<i>pl.</i> banāt)	dukhtar	qiz
day	yaum (<i>pl.</i> aiyām)	rüz	gün
dead	maiyyit	murdeh	ülü, ülmush
deaf	aṭrash	karr	sāghir
dear (person)	'aziz	'aziz	'aziz
dear (price)	ghāli	girān	pahale
death	maut	marg	ülüm
deceive	khada', yakh-da'	firiftan, firib or gül zadan, zan	aldatmaq, hilé-étmék
December	Kānūn al-auwal	Dai, Kānūn-i-auwal	Kyānūn-i-évvél
deck	saṭḥ	saḥḥa-yi-kashtī	göverté

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
declaration (of war)	i'lān al-ḥarb	i'lān-i-jang	i'lān al-ḥarb
deep	'amiq	'amiq	dérin
deer	ghazāl	āhū	gélyik
defeat (<i>n.</i>)	inkisār, hazi- mah	shikast khur- dan	inhizām
defeat (<i>v.</i>)	kasar, yaksur	shikast dādan, deh	inhizām étmék
defend	dāfa', yudāfi'	difā' kardan, kun <i>or</i> ḥimā- yat kardan, kun	muhāfaza étmék, qoru maq
deficiency	'adam kifāyah, nuqṣān	kamī	noqsān
dense	mushtabik	ghaliz, mush- tabik	seq
depreciation (of troops, guns, &c.)	khalal, nuqṣān	nuqṣān	khalal
describe	waṣaf, yaṣif	bayān kardan, kun <i>or</i> waṣf kardan, kun	ta'rīf étmék, anlatmaq
desert (<i>n.</i>)	bariyah, ṣaḥrā	biyābān	yabān
desert (<i>v.</i>)	tarak, yatrūk <i>or</i> harab, yah- rub	guzāshtan, guzār	braqmaq, térék étmék
deserter	munhazim, hārib	gurikhteh	qachaq
despatch (<i>n.</i>)	risālah	risāleh, murā- saleh	tahrīrat
destroy	hadam, yahdim <i>or</i> dammar, yudammir	talaf kardan, kun	mahv étmék, bozmaq
determination	jazm, taṣmīn	taṣmīm	sélābét
diarrhoea	is-hāl	is-hāl	is-hāl
die	māt, yamūt	murdan, mīr	ölmék, véfāt étmék

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
difficult	ša'b	mushkil	zōr, güch
dig	ḥafar, yaḥfır	kandan, kan	qazmaq
dinner	ṭa'ām, 'ashā	shām	akhsam yéméyi
dirty	wasikh	chirk	pīs, kirli
disappear	ghāb, yaghīb	gum shudan, shau <i>or</i> ghā'ib shudan, shau	ghāib olmaq
discover	kashaf, yak- shif	daryāftan, daryāb	bulmaq, keshf étmék
disease	maradh, 'illah	nā-khushī	khastaliq
dishonest	khā'in, makkār	nā-durust	khersez, insāf- sez
disobedient	'āṣi	sarkash, 'āṣi	itā'atsez, dik- bāsh
district	nāhiyah (<i>pl.</i> nawāḥi)	nāhiyeh	qazā, nāhiya
diver	ghauwās	ghauwās	dalghech
divide	qassam, yu- qassim	taqsīm kardan, taqsīm étmék, kun	ayirmaq
division	firqah (<i>pl.</i> firaq)	firqah	firqa
do	fa'al, yaf'al	kardan, kun	yapmaq, étmék
dock	ḥaudh al-ma- rākiḥ		gēmi hauzé, tērsāné hauzé
dockyard	minā li-ta'mīr as-sufun	kār-khāneh-i- kashtī-sāzī	tērsāné
doctor	ṭabīb, ḥakīm	ṭabīb, ḥakīm	hékīm
dog	kalb (<i>pl.</i> kilāb)	sag	köpék
donkey	ḥimār (<i>pl.</i> ḥa- mīr)	khar, ulāgh	éshék
door	bāb (<i>pl.</i> ab- wāb)	dar	qapu
doubt (<i>v.</i>)	shakk, ya- shukk	shakk kardan, kun	shübhé étmék
draw (map, &c.)	rasam, yarsum	rasm kardan, kun	résim étmék

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
draw up (document)	rasam, yarsum or katab, yak- tub	rasm kashīdan, kash	tanzīm étmék
draw up (line of troops)	şaff, yaşuff	şaff bastan, band	tanzīm étmék
dress (v.)	labis, yalbas	pūshidan, pūsh	geyinmék
dress (a wound)	rabat, yarbut	marham gu- zāshtan, guzār	(yari) baghla- maq
drift (v.)	ţafa, yatfu	bā sail raftan, rau	suyun aqinté- silé qapilmaq
drink (n.)	mashrūb	sharbat	ichqi
drink (v.)	sharib, yash- rab	āshāmīdan or nūshīdan, nūsh	ichmék
drive (trans.)	sāq, yasūq	rāndan, rān	sūrmék, qosh- durmaq
drown (intrans.)	ghariq, yagh- raq	gharq shudan, shau	boghmaq
drown (trans.)	aghraq, yugh- riq	gharq kardan, kun	boghulmaq
dry (v.)	nashshaf, yu- nashshif	khushk kar- dan, kun	qurutmaq
dry (adj.)	yābis	khushk	quru
duck	batţah	ūrdak	ördék
dust	ghubār	gard	töz
dynamite	dīnāmīt	dīnāmīt	dinamit
dysentery	is-hāl ad-damm	is-hāl	is-hāl
ear	udhn (<i>dual.</i> udhnain)	gūsh	qulāq
early	bākiran	zūd	érkén
earthen	turābi, ţini	khākī	topraqdan
earthwork	mitrās	khāk riz	istihkyām
east	sharq	khāwar, sharq	sharq, gün- doghusu
Easter	‘Īd a faşh	‘Īd -i-faşh	Büyük pas- qālya

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
eastern	sharqi	sharqī	sharqi
easy	sahl	āsān	qolai
eat	akal, ya'kul	khurdan, khur	yémék
egg	baidhah (<i>pl.</i> baidh)	tukhm-i- murg	yemurta
Egypt	Maşr	Mişr	Misr
Egyptian	Maşri	Mişrī	Misrli
embark (<i>intrans.</i>)	rakab (<i>yar-</i> kub) fi safi- nah	bar kashtī suwār shudan, shau	gémiyé bin- mék
embarkation	rukūb	rukūb	gémiyé bin- méklik
employ (thing)	ista'mal, yas- ta'mil	isti'māl kar- dan, kun	qullanmaq
employ (men)	shaghghal, yushaghghil	tashghīl kar- dan, kun	ish vérmék
empty (<i>v.</i>)	farragh, yu- farrigh	khālī kardan, kun	boshatmaq
empty (<i>adj.</i>)	fārigh	khālī	bosh
encamp	khaiyam, yukhaiyim	khaimah za- dan, zan	chādir qūrmaq
encampment (of nomads)	khiyām, mu- khaiyam	chādir gāh	chādir yére
end (<i>trans.</i>)	azāl, yuzīl, or atamm, yutimm	anjām dādan, deh or tamām kardan, kun	bitirmék
endure	şabar 'ala, yaşbir 'ala	taḥammul namūdan, numā	dayanmaq
engine	ālah	māshīn	makina
engineers	muhandisīn	muhandis-hā	istihkyām alai
England	Inkiltarah	Inglistān	Ingilterra
Englishman	Inklizi	İnglisī	İngliz
enough	bil-kifāyah	bas, kāfi	yétishir, kyāfi
ensign	'alam (<i>pl.</i> a'lām), liwā (<i>pl.</i> alwi- yah)	bairaq	sanjaq, bairaq
envelope	zarf	zarf, pākat	zarf

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
equip	jahhaz, yujah- hiz	tajhiz kardan, kun	téjhiz étmék, donatmaq (ship)
err	ghalit, yagh- lat, <i>or</i> akhta, yukhti	ghalat namū- dan, numā	yanesh(+ <i>suffix</i>) vār
escape	harab, yahrub <i>or</i> naja, yanju	rastan, rah <i>or</i> rahāi yāftan, yāb	qachmaq
escort (n.)	hāris, khafārah	badraqah	qonboy
escort (v.)	haras, yahrus	hamrāh raftan, rau	raqabét étmék
evacuate	khalla, yu- khalli, <i>or</i> far- ragh, yufar- righ	takhliyah kardan, kun	takhliyé étmék, boshatmaq
evening	masā	shām	akhsham
every	kull	har	hér
everything	kull shai	hameh chiz	hér shei
everywhere	fi kull makān	har jā	hér yére, hér yénde
ewe	na'jah	mādeh mish	dishi-qoyūn
examine (facts, v.)	fahṣ, yafḥṣ (a question), imtaḥan, yamtaḥin (a candidate)	taftish kar- dan, kun	téftish étmék, yoqlamaq
except	illā	bi-juz az	-dan bashqa (<i>suffix</i>)
excuse (v.)	'adhar, ya'dhir	ma'zūr dāsh- tan, dār	'afv-étmék
exercise (n.)	tamrīn	mashq	ta'līm (drill)
explain	fassar, yufassir <i>or</i> baiyan, yubaiyin	hālī kardan, kun	anatmaq, ta'rīf étmék
explode (<i>trans.</i>)	fajjar, yufajjir	infijār kardan, kun	patlatmaq
explode (<i>intrans.</i>)	infajar, yan- fajir	tarakīdan, tarak	patlamaq

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
explosion	infijār	infijār	patlama
exposed	ma'rūdh	ma'rūz	ma'rūz
eye	'ain (<i>dual.</i> 'ainain, <i>pl.</i> 'uyūn)	chashm	göz
face	wajh (<i>pl.</i> wujūh)	rūi, şurat	yuz
faithful	amin, şādiq	wafādār	sādiq, doghrū
fall	saqat, yasquṭ	uftādan, uft	düşmék
family	'ā'ilah	ahl-i-khāneh	familya, év, choluq chojuq- lar
famous	mashhūr	mashhūr, nāmdār	méshhūr
fanatical	muta'aşşib	muta'aşşib	muta'assib
far	ba'id	dūr	uzaq
farm	mazra'ah	mazra'	chiftlik
farrier	na'al	na'l-band	na'l-band, bai- tār (<i>vet.</i>)
fat	samīn	farbeh	sémiz, (man) shishman
father	ab	pidar	bābā, pédér
fear (<i>v.</i>)	khāf, yakhāf	tarsīdan, tars	qorqmaq
February	Shubāt	Shubāt	Shubāt
ferry (<i>n.</i>)	ma'bar	ma'bar, guzar-gāh	géchid yére
fetch	jā bi-, yajī bi-	āwurdan, ār	gétir
fever	ḥumma	tab	sitma
field	ḥaql, mazra'ah	chaman	tarla
fight (<i>v.</i>)	qātal, yuqātil	jang kardan, kun	muhārébé ét- mék
fight (<i>n.</i>)	qitāl	jang	ghavgha, mu- hārébé
fill	mala, yamla	pur kardan, kun	doldurmaq
filly	muhrah	mādeh kurreh	qisraq tāi

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
find	wajad, yajid	yāftan, yāb	bulmaq
finger	işba' (pl. aşābi')	angusht	parmaq
fire-place	mauqad	bukhārī	ojaq
fire-wood	ḥaṭab	hīzam	odun
firing line	aş-şaff al-auwal	şaff-i-auwal	atësh yére
firm	thābit	ustuwār, pāya- dār, muḥ- kam	siqi
fish (n.)	samak	māhī	baleq
flag	'alam (pl. a'lām)	bairaq	bairaq
flat	musatṭaḥ	hamwār, mu- saṭṭaḥ	duz, yase
flea	burghūth (pl. barāghīth)	kak	pīré
flee	harab, yahrub	gurikhtan, guriz	qachmaq
fleet	uṣṭūl	jihāzāt-i-jangī	donanma
flesh	laḥm	gūsh	ét
flock (n.)	qaṭī'	galleh	sürü
floor	ardhīyah	zamīn	dushémé, dabān
flour	ṭaḥīn	ārd	ün
flower	zahr (pl. zu- hūr)	gul	chichék
fly (n.)	dhubābah (pl. dhubāb)	magas	sinék
fly (v.)	tār, yaṭīr	parīdan, par	ūchmaq
fog	ḍhabāb	meh	duman, sis, pus
follow	tabī', yatba'	'aqab raftan, rau	ta'qīb étmék
food	ṭa'ām	khūrāk	yéyéjék, yémék
foot	qadam	qadam, pā	ayaq (on foot, yayan)
footpath	maslak	rāh-i-kūchak	méslék

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
for—	li-	barāyi	-ichin (<i>following word</i>)
for me	lī	barāyi-man	benim-ichin
for thee	lak	barāyi-tū	senin-ichin
for him	lahu	barāyi-ū	ānin-ichin
for her	lahā	barāyi-ū	ānin-ichin
for us	lanā	barāyi-mā	bizim-ichin
for you	lakum	barāyi-shumā	sizin-ichin
for them	lahum	barāyi-ishān	ānlar-ichin
forbid	naha, yanha	qadaghan, qadagh or man kardan, kun	yasāq étmék
ford (n.)	makhādhah	guzār-gāh	géchid
forecastle			gémi bashe qamarase
forest	ghābah	jangal, bīsheh	ormān
forget	nasi, yansa	farāmūsh kardan, kun	onūtmaq
forgive	'afa 'an, ya'fu 'an	bakhshīdan, bakhsh	baghishlamaq, 'afv étmék
fork	shaukah	changāl	chatāl
formerly	sābiqan	sābiqā	sābiqā, évvélja
fortifications	hişārāt	hişār-hā	istihkyāmāt
fortify	haşşan, yu-haşşin	istihkām dādan, deh	istihkyām étmék
fortunate	sa'id	nīk-bakht	bakhtyār
fowl	dajājah	murgh	tawuq
fox	tha'lab (<i>pl.</i> tha'alīb)	rūbāh	tilki
France	Frānsah	Firānseh	Fransa
free (<i>adj.</i>)	hurr, mutlaq	āzād	sér-bést
Frenchman	Frānsāwi	Frānsāwī	Fransez
fresh	jadīd, raṭīb	tāzeh	tāzé
Friday	Yaum al-jum'ah	Jum'ah	Jum'a
friendly	bi-maḥabbah	dūstāneh	dost

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
frighten	khauswaf, yu-	tarsānīdan,	qorqutmaq
from—	khauswif	tarsān	
	min	az	-dan (following the noun)
from me	minnī	az man	bén-dén
from thee	minka	az tū	sén-dén
from him	minhu	az ū	ān-dan
from her	minhā	az ū	ān-dan
from us	minnā	az mā	biz-dén
from you	minkum	az shumā	siz-dén
from them	minhum	az īshān	ānlar-dan
frost	jalīd	yakh	qeraghe, don
fruit	thamar,	mīweh	meivé, yémish
	fawākih		
fuel	waqūd, mihrāq	sūkhtanī,	odun
		hīmeḥ	
full	mal'ān	pur	dolu
funnel	madkhanah	dūdkaṣh	baja
fuze (<i>n.</i>)	fatīlah	fatīleh	fetīl
gale	zauba'ah	tūfān, bād-i-	firtīna
		shadīd	
gallop (<i>v.</i>)	rakadh,	chār na'l raftan	durt na'l
	yarkudh		gitmék
gate	bāb (<i>pl.</i> ab- wāb)	darwāzeh	qapu
gear	ālāt	rakht, asbāb	ālatlar,
			taqīm
gelding	ḥiṣān makḥṣī	bār-gīr, ākhteh	idish āt, bégir
general	amīr, qā'id	sardār	farīq
gentle	laṭīf	narm, mulāyim	mulāyim
German	Almāni	Almānī	Alemān
Germany	Almānyā	Almān	Alemānya
get	ḥaṣṣal, yuḥaṣ- ṣil	yāftan, yāb	almaq, nāil
			étmék, yétish- mék,
get up (rise)	qām, yaqūm	bar khāstan,	qalqmaq
	or nahadh,	khīz	
	yanhadh		

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
girl	bint, sabīyah	dukhtar	qiz
girth	daur al-ḥizām	tang	muhīt
give	a'ṭa, yu'ṭi	dādan, deh	vérmék
give in	istaslam, yastaslim	taslīm shudan, shau	téslīm-olmaq
glad	farḥān, masrūr	khush-ḥāl	mémnūn
glass (for drinking)	ka's (<i>pl.</i> ku'ūs)	piyāleh	qadéh
gloves	kufūf	dastkash-hā	éldivén
go—	rāh, yarūh	raftan, rau	gitmék
go away	<u>dh</u> ahab, yad <u>h</u> hab	<i>or</i> rawāneh shudan, shau (gum shau ! 'go away ! get out !')	gitmék
go in	dakhal, yad- khul	dākhil shu- dan, shau	ichéri-gitmék, girmék
go out	kharaj, yakh- ruj	bīrūn raftan, rau	chiqmaq
goat	ma'z	buz	kéchi
gold	<u>dh</u> ahab	zar, talā	altun
good	jaiyid	khūb	iyi, güzél
goose	wazzah	qāz	qāz
governor's office	dār al- ḥukūmah	maḥall-i-ḥukū- mat	qonaq
grass	ḥashīsh, 'ushb	giyāh	öt
grateful	shākir	ḥaqq-shinās, shakūr	mütéshékkir
great	'azīm	buzurg	büyük
greatcoat	'abā	bālā pūshī	qapot
green	akhdhar	sabz	yéshil
greet	sallam 'ala, yusallim 'ala	taḥīyeh kar- dan, kun <i>orsa-</i> lām kardan, kun	sélam-vérmék
grey	ashhab	khākistari	qer, gümüşhü
guide (<i>n.</i>)	dalīl	rāhbar	izji, qulawuz

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
guide (v.)	hada, yahdi <i>or</i> dall, yadull	rāhnumā'ī, kardan, kun	yol göstérémék, délâlet étmék
guilty	mujrim, jāni	muqassir	qabāhatli
gulf	khalij	khalij	körféz
gun (cannon)	madfa' (<i>pl.</i> madāfi')	tūp	top
gunboat	ghānbōt		ghānbōt
hail	barad	tagarg, tagar	dolu
hair	sha'r	mūi	sāch
halt (v.)	waqaf, yaqif	wā istādan, īst	eilénmék, dūrmaq
hammer (n.)	maṭraqah	chakush	chékij
hammer (v.)	daqq, yaduqq	kūbīdan, kūb	chaqmaq
hand	yad (<i>pl. aidi</i>)	dast	él
hand grenade	qumbalat al- yad (<i>pl. qanā- bil al-yad</i>)	khumpare-yi- dast	él-qombarase
hang up	'allaq, yu'alliq	āwikhtan, āwiz	āsmaq
harbour	mīnā (<i>pl. ma- wāni</i>)	bandar	liman
hard	ṣulb	sakht, sift	sért, qate,
hate (v.)	karih, yakrah	karāhiyat kardan, kun	'adāvét étmék, ikrāh étmék, sévmémék
have—	(<i>pronominal suffix added to preposition 'ind, 'with'</i>)	dāshtan, dār	(<i>pronominal suffix added to the thing possessed, followed by vār</i>)
I have	'indi	dāram	-im vār
thou hast	'indak	dārī	-in vār
he has	'indahu	dārad	-i (<i>or</i> si), vār
she has	'indahā	dārad	-i (<i>or</i> si), vār
we have	'indanā	dārim	-imiz vār
you have	'indakum	dārid	-iniz vār
they have	'indahum	dārand	-léri (<i>or</i> lari) vār
have not	mā 'indi (<i>etc.</i>)	na-dāshtan, na-dār	yōq (<i>used like vār</i>)

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
have you ?	hal 'indak ?	āyā mī-dārid ?	-iniz vār-mi ?
hay	'alaf, tibn	giyāh-i-khushk	quru ot
he	hua	ū	o
head	ra's (<i>pl.</i> ru'ūs)	sar	bash
headache	ṣudā', waja' ra's	dard-i-sar	bash āghrisi
headland	ra's (<i>pl.</i> ru'ūs)	rās	burun
head-quarters	markaz al-qā'id al-'āmm	markaz-i-sipah-sālār	qarārgyāh
healthy	muta'āfi	tandurust, chāgh	saghlam
heap (<i>n.</i>)	kōm	tūdeh	yighin
heap up	kauwam, yukauwim	tūdeh kardan, kun	yighmaq
hear	samī', yasma'	shunīdan, shunau	ishitmék
heart	qalb (<i>pl.</i> qulūb)	dil	yürék, gönül
heat (<i>v.</i>)	sakhkhan, yusakhkhin or aḥma, yuḥmi	garm kardan, kun	ésitmaq, qezdermaq
heat (<i>n.</i>)	ḥarārah	garmā	harārét, sijaq
heavy	thaqīl	sangīn	agher
helm	daffah	sukkān	dumén
help (<i>v.</i>)	sā'ad, yusā'id	madad dādan, deh	yardem-étmék
help (<i>n.</i>)	musā'adah	yāwarī	yardem
herd	sirb (<i>pl.</i> asrāb)	galleh	sürü
here	hunā	injā	bura, burda
hide (<i>trans.</i>)	akhfa, yukhfi	panhān kar-dan, kun	saqlamaq, gizlémék
hide (<i>intrans.</i>)	ikhtafa, yakh-tafi	panhān shudan, shau	saqlanmaq, gizlénmék
high	'ālī	buland	yüksék
high-road	ṭarīq (<i>pl.</i> ṭuruq)	rāh, shāh-rāh	jāddé yol

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
high-water	madd al-mā	madd-i-daryā,	méd-di kyāmil, déniz qabar- masi
hill	tall (<i>pl.</i> tulūl)	kūh, tappeh	tépé
hillock	tall ṣaghīr	kūh-i-kūchak	tépéjik
hilly	dhāt tulūl	past u buland	enishli- yoqushu
him	-hu, -hi (<i>suffix</i>)	ū-rā, -ash (<i>suffix</i>)	ona, onu
hinder	mana', yamna'	man' kardan, kun	braqmamaq, mani' olmaq
his	-hu, -hi (<i>suffix</i>)	-i-ū, -ash (<i>suffix</i>)	onun
hit (<i>v.</i>)	aṣāb, yuṣīb	zadan, zan	vurmaq
hither	ila hunā	bi-injā	būraya
hobbles (<i>n.</i>)	'iqāl	pā-band	
hold (<i>v.</i>)	masak, yam- suk	giriṭtan, gīr	tūtmaq, yiqala- maq
hold (contain)	ihtawa, yaḥ- tawi	gunjāyish dāshtan, dār	almaq ; <i>to be</i> <i>contained</i> , sighmaq
hold (a posi- tion)	hāma, yuhāmi	nigāh dāshtan, dār	tūtmaq
hold out	taḥammal, yataḥammal	mudāwamat	dayanmaq
hole	naqb (<i>pl.</i> anqāb)	kardan, kun sūrākh	délik
honest	ṣādiq	durust-kār, amīn	doghru
hook	qullāb (<i>pl.</i> qa- lālib)	qullāb	chéngél
hope (<i>n.</i>)	amal, rajā	umīd	
hope (<i>v.</i>)	raja, yarju	umīd dāshtan, dār	ümid étmék
horse	ḥiṣān	asp	āt
horseshoe	na'l faras	na'l	na'l
hospital	mustashfa	bīmār-khāneh	khasta-khāné

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
hostile	mukhālīf, 'udwānī	dushman	düşmén
hot	ḥārr	garm	sijaq
hour	sā'ah	sā'at	sā'at
house	bait (<i>pl.</i> buyūt)	khāneh	év, khāné
how much	kam, (<i>of price,</i> bi-kam, biash)	ch eh qadar	né qadar, (<i>of price, qach</i>)
how many	kam	chand	qach tāné
hungry	jā'i', jau'an	gurasneh	ach
hurry (<i>n.</i>)	'ajalah	'ajaleh	'ajélé
hurry (<i>v.</i>)	asra', yusri'	dast-pācheh shudan, shau	'ajélé étmék
husband	zauj	shauhar	qoja, érkék
I	anā	man	bén
ice	thalj, jalid	yakh	buz
if	in	agar	éyér
ignorant	jāhil	jāhil, nā-dān	jāhil, ma'lū-mātsez
ill	marīdh	nā-khush	khasta, keif-sez
illness	maradh	nā-khushī, bīmārī	khastaliq
impossible	muṣtaḥīl	ghair mumkin or muṣtaḥīl	ōlmaz, mumkin déyil
imprison	ḥabas, yaḥbis	ḥabs kardan, kun	habs étmék
impudent	bilā ḥayā	shūkh, bī-sharm	édébsez, küs-tākh
in—	fi	dar	-da (<i>suffix</i>)
inconvenient	ghair munāsib	nā-munāsib	münāsibétsez, sikendele
increase (<i>trans.</i>)	zād, yazīd	afzūdan, afzā	artirmaq, cho-ghaltmaq
increase (<i>intrans.</i>)	izdād, yazdād	afzūdan, afzā	artmaq, cho-ghalmaq
India	Bilād al-Hind	Hindustān	Hindustān
Indian	Hindī	Hindī	Hindli
indigestion	tukhmah, sū al-hadh ^m	sū-i-hazm	sū'i hazm

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
infantry	piyādah	sarbāz-i-piyādeh	piyādē 'askér
infectious	mu'di	sārī	bulashir, sārī
inform	akhbar, yukhbir	khabar dādan, deh	bildirmék
in front	quddām, amām	pīsh	iléri
in front of	quddām, amām	pīsh-i-	ön (+ <i>suffix</i>) dé
in future	fil-mustaqbil	dar āyandeh	bundan soñra, atida
ink	hibr	murakkab	mürékkéb
inlet	khalīj ṣaghīr	khalīj-i-kūchak	aghez, boghaz
innocent	barī	bī-gunāh	qabāhatsez, ma'sūm
inside	dākhil	andarūn, dar	ichindé
insult (<i>v.</i>)	ahān, yuhīn	ihāneh kardān, kun	haqārat étmék
insult (<i>n.</i>)	ihānah	ihāneh	haqārat
intelligent	'āqil	hūshdār, 'āqil	'aqli
intend	arād, yurīd	niyyat kardan, kun	niyyét (+ <i>suffix</i>) vār
interpret	tarjam, yutar-jim	tarjumeh kardan, kun	térjumé étmék
interpreter	tarjumān	mutarjim	térjumān
into	fi, ila	dar dākhil	ichiné
invent	ikhtara', yakh-tari'	ikhtirā' namūdan, numā	ijād étmék
invite	da'a, yad'u or 'azam, ya'zim	da'wat kardan, da'vét étmék kun or mih-mān kardan, kun	
iron (<i>n.</i>)	hadīd	āhan	démir
iron (<i>adj.</i>)	hadīdi	āhanīn	démirdén
irrigate	asqa, yusqi	āb dādan, deh	sūlamaq
island	jazīrah (<i>pl.</i> jazā'ir)	jazīreh	āda

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
is there ?	hal ?	hast ?	bulunur-mu ? vār-mi ?
it	-hu, -hi, -hā (<i>suffix</i>)	ān	o
its	-hu, -hi, -hā (<i>suffix</i>)	-i-ān (<i>suffix</i>)	onun
jackal	wāwī (<i>pl.</i> wāwī- yah)	shughāl	chagāl
jam	murabba	murabba	réchél, tatle
January	Kānūn ath- thāni	Kānūn-as-sāni	Kyānūn-i-sāni
jetty	rasīf, musan- nāyah	iskaleh	iskélé
Jew	Yahūdi (<i>pl.</i> Yahūd)	Yahūdī	Yahūdi
journey	safar	safar	séfér, yoljuluq
jug	ibriq	āftābeh, kūzeh	désti
July	Tammūz	Tammūz	Témmūz
jump (v.)	qafaz, yaqfız	jastan, jeh	atlamaq
June	Hazīrān	Hazīrān	Hazīrān
jungle	ghābah	jangal, bīsheh	ormān
justice	inṣāf, ‘adl	inṣāf, ‘adl	doghruluq, huqūq omurgha
keel	qā‘idat al- markab		
keep	ḥafız, yaḥfaz	nigāh dāshtan, saqlamaq dār	
kettle	kitri, ghal- lāyah	āb-garm-kun, kitrī	qazan, ibriq
key	miftāḥ	kilīd	anakhtar
kick (v.)	rafas, yarfus	lakad zadan, zan	tépmék, tékmé atmaq
kid	jadyū	buzghāleh	oghlaq
kill	qatal, yaqtul	kushtan, kush	öldürmék, késémék
kind (<i>adj.</i>)	mun‘im, ḥalīm	mihrabān	iyi, insāniyétli
kind (<i>n.</i>)	jins (<i>pl.</i> ajnās)	nau‘	név, turlu
king	malik (<i>pl.</i> mulūk)	shāh	qral

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
kingdom	mamlakah (<i>pl.</i> mamālik)	mamlakat	mémlekét
kitchen	matbakh	āshpaz-khāneh	matbakh, āsh khāné
knee	rukbah	zānū	diz
knife	sikkīn (<i>pl.</i> sakākīn)	chāqū, kārd	bichaq
knot (distance)	mīl (<i>pl.</i> amyāl)	mīl	mīl, déniz mīli
know	‘araf, ya‘rif	dānistān, dān	bilmék
Kurdistan	Kurdistān	Kurdistān	Kurdistān
lack (<i>v.</i>)	ihtāj ila, yahtāj ila	kam shudan, shau	éksik olmaq, lāzim
lake	buhairah	daryācheh	göl
lamb	ṭālī (<i>pl.</i> ṭulyān)	barreh	quzu
lame	a‘raj	lang	topāl (man), aqsiyor (horse)
lamp	sirāj	chirāgh	lampa, qandil
lance	rumh (<i>pl.</i> rimāh)	naizeh	mizraq
land (<i>n.</i>)	ardh, barr	zamīn	qara, érz
landing party	ṭālī‘īn al-barr		qaraya cheqan
language	lughah (<i>pl.</i> lughāt)	lughat, zabān	dil, lisān
large	kabīr	buzurg	büyük
last	ākhir	ākhir, wā-pa- sīn	sōn, géchén
late	muta‘akhhir, baṭī	dīr	géch
laugh (<i>v.</i>)	dhahik, yadhḥak	khandīdan, khand	gülmék
launch (<i>n.</i>)	zauraq		
law	qānūn (<i>pl.</i> qawānīn)	qānūn	qānūn
lay (place, put)	wadhā‘, yadhā‘	guzāshtan, guzār	qomaq, yatirmaq
lazy	kaslān	sust, tambal	témbél
lead (metal <i>adj.</i>)	raşāşī	surbī	qurshūn

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
lead (metal <i>n.</i>)	raşās	surb	qurshūn
lead (<i>v.</i>)	qād, yaqūd	rāh-numā'i kardan, kun	gétirmék, iléri düşhmék
leak (<i>n.</i>)	naqb, thuqb	sūrākh	délik
lean (<i>adj.</i>)	naḥīf	lāghar	za'if, jiliz
learn	ta'allam, yata'allam	āmūkhtan, āmūz	örénmék
leather	jild	charm, pūst	méshin
leave (<i>v.</i>)	tarak, yatrūk	guzāshtan, guzār	braqmaq, térék étmék
leech	'alaqah (<i>pl.</i> 'alaq), dūdah (<i>pl.</i> dūd)	zālū	sülük
left	shimāl	chap	sol
leg	sāq	pā, sāq	ayaq
lend	daiyan, yudaiyin (mo- ney) ; a'ār, yu'ir (gene- ral)	qarz dādan, deh or 'āriyeh dādan, deh	udunj vérmék
length	tūl	dirāzī	boi, uzunluq
less	aqall	kamtar	daha āz, -dan āz (<i>suffix</i>)
letter	maktūb (<i>pl.</i> makātīb), risālah (<i>pl.</i> rasā'il)	maktūb, nāmeḥ	méktūb
level (<i>adj.</i>)	sahl (<i>ground</i>), mutasāwi	musattāḥ, hamwār	düz
lie (on a bed, &c.)	idḥtāja', yadḥtaji'	dirāz kashī- dan, kash	yatmaq
lie (to tell a)	kadhab, yakdhib	durūgh guftan, gū	yalān söilémék
lie (<i>n.</i>)	kidhb	durūgh	yalān
lieutenant	mulāzim	mulāzim	mülāzim

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
life	‘umr, ḥayāt	zindagī, ḥayāt	ḥayāt
life-belt	ḥizām an-najāt	kamarband-i-najāt	yüzméyé makhsūs kémér, jān qurturān kémér
lift	rafa‘, yarfa‘	bar dāshtan, dār	qaldirmaq
light (of weight)	khafif	subuk	khafif
lighter	dūbah		ma‘ūna
lights	anwār	chirāgh	qandiller, fénérler
limit	ḥadd (<i>pl.</i> ḥudūd)	ḥadd	hadd, kénār
limp (<i>v.</i>)	‘araj, ya‘raj	langīdan, lang	topallamaq
line	khatt (<i>pl.</i> khuṭūt)	satr	khatt, chizgi
lip	shafah (<i>dual.</i> shafatain)	lab	dudāq
listen	aṣgha ila, yuṣghī ila <i>or</i> sami‘, yasma‘	gūsh dādan, deh	dinlémék
little (<i>adv.</i>)	qalīlan	kam	az
little (quantity)	qalīl	andak, kam	küchük, az
live	‘āsh, ya‘īsh	zindagānī kardan, kun	yashamaq
live (i. e. dwell)	sakan, yaskun	manzil dāsh-tan, dār	oturmaq, muqim olmaq
lively	nashīt	khush ṭab‘	janle
liver	kabid	jigar	qara-jiger
load (<i>v.</i>)	ḥammal, yuhammil	bār kardan, kun	yüklémék
load (<i>n.</i>)	ḥiml	bār	yük, hamulé
load (a gun)	‘ammar, yu‘ammir	pur kardan, kun	doldurmaq
lock (<i>n.</i>)	qufl	qufl	kilid

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
lock (v.)	qaffal, yuqaffil	qufl zadan, zan	kilîdlémék
locust	jarād	malakh	chékirgê
log	qurmah	chûb	odun
log (of ship)	barnāmaj	rûz-nāme-yi- kashtî	jurnal
long	ṭawîl	dirâz	uzun
look at	nazar ila, yanzur ila	nigâh kardan, kun	baqmaq
look-out (n.)	hâris	nigâh bân	vârda nôbétjisi
loot (n.)	nahb, ghanî- mah	ghârat, yaghmâ	yaghmâ, ghanimét
lose	faqad, yafqid	gum kardan, kun	ghâib étmék
loss	khasārah (pl. khasā'ir)	ziyân	zarar, zayât
louse	qaml	shipish	bit
low	wāṭi	past	alchaq
low-water	jazr al-mâ	jazr-i-daryâ	déniz jézri, dé- niz chékilmasi
magazine (powder)	makhzan al- bârûd	makhzan-i- bârûd	bârût makh- zane, jêb-khâné
maize	dhurah	zurrah	misr boghdayi, dâri
major	bimbâshi	sarhang	bimbâshi
make	ṣana', yaṣna'	sākhtan, sâz	yapmaq
man	rajul (pl. rijâl)	mard	adam
map	kharīṭah	kharīṭeh, naqsheh	kharīta
March	Adhâr, Mârs	Farwardîn, Azâr	Mart
march (v.)	zaḥaf, yazḥaf or masha, yamshi	kûchidan, kûch	yörümék
mare	faras	mâdiyân	qesraq
mark (n.)	'alāmah (pl. 'alāmât)	nishân, 'alāmat	nishân

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
market	sūq	bāzār	charshi, pāzār
marsh	mustanqa', haur (<i>pl.</i> ahwār)	khalāb, waḥal	balcheq, bataqliq
mast	ṣāriyah	sutūn-i-jahāz	dirék
master	maula, saiyid	āqā	éfendi
matches	kibrīt	kibrīt	kibrīt
May	Aiyār, Māyū	Aiyār	Māyis
me	-ī, -nī (<i>suffix</i>)	marā	béni, bana (to me)
mealies	idhrah		misr bogh- dayi
mean (<i>v.</i>)	'ana, ya'ni	ma'nī dāshtan, né démék dār	
measure (<i>v.</i>)	qās, yaqīs	paimūdan, paimā	ülchmék
measure (<i>n.</i>)	miqyās, ṭūl	miqyās	ülchu
meat	lahm	gūsh	ét
medicine	dawā	dawā	'ilāj
meet	lāqa, yulāqi	mulāqāt kar- dan, kun	rāst gélmék, bulushmaq
melted butter	duhn	raughan	eridilmish saiyaghe
mend	ṣallah, yuṣallih	marammat kardan, kun <i>or</i> durust kardan, kun	ta'mir étmék
merchant	tājir (<i>pl.</i> tujjār)	tājir	tājir
metal	ma'din (<i>pl.</i> ma'ādin)	ma'dan	ma'dén
metalled road	shōṣah, shāri' muzallaṭ	shōṣeh	shōsé
middle	wasat	miyān, wasat	örta, mérkéz
mile	mīl (<i>pl.</i> amyāl)	mīl	mīl
military	'askari	nizāmī, 'askarī	'askéri, nizāmi
milk	halīb	shīr	süt
mill	tāhūnah	āsyā	déyermén
millet	dukhn	arzan	dāri

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
mine (<i>pron.</i>)	-ī (<i>suffix</i>)	māl-i-man	bénimki
mine (<i>n. ex-</i> <i>plosive</i>)	lughm (<i>pl.</i> alghām)	lagham	laghm
minute	daqīqah (<i>pl.</i> daqā'iq)	daqīqeh	daqīqa
missing	mafqūd	gum shudeh, nāqiş	éksik, ghāib
mix	khalat, yakhliţ	āmīkhtan, āmīz	qarishdirmaq
monastery	dair	khānqāh	tékké
Monday	Yaum al-ith- nain	Dūshambeh	Bāzār-irtési
monitor	monitor	monitor	monitor séfinési
month	shahr (<i>pl. ash-</i> <i>hur</i>)	māh	āi
moon	qamar	māh	āi, mahitāb
more	akthar	ziyādtar	ziyādé, dahā
morning	şabāh	şubh	sabāh
mosquito	ba'ūd <h>h</h> ah	pashsheh	sivri sinék
mother	umm	mādar	ana, vālidé
mountain	jabal (<i>pl.</i> jibāl)	kūh	dāgh
mountain- range	silsilat jibāl	kūhistān	dāgh silsilési, sira dāghlar
mouth	fam	dahan	aghz
mouth (of river)	fam an-nahr	dahaneh	(irmaq) aghzi, achiq
move (<i>trans.</i>)	harrak, yuħar- rik	taħrīk kardan, kun	naql étmék
move (<i>intrans.</i>)	taħarrak, yata- harrak	ħarakat kar- dan, kun	qimildanmaq
much (<i>adj.</i>)	kathīr	bisyār	choq
much (<i>adv.</i>)	kathīran	khailī	choq
mud	waħl	gil	chamur
muddy	muwahħhal	gil-ālūd	chamurli

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
mud flats	dihlah, ṭamyū		balchiq
mule	baghl (<i>pl. bi-ghāl</i>)	astar, qātir	qater
muleteer	baghghāl, mukāri	charvadār	qaterji
must	lāzim an	bāyad (<i>impersonal</i>)	-meli, mali (<i>suffix to verbal root</i>), lāzim
mutiny (<i>n.</i>)	‘aṣyān, thaurah	‘aṣyān	‘isyān, tughyān
mutton	laḥm dhāni	gūsht-i-gūsband	qoyun éti
my	-ī (<i>suffix</i>)	-i-man, -am (<i>suffix</i>)	bénim, -im (<i>suffix</i>)
nail (iron)	mismār (<i>pl. masāmīr</i>)	mikh	chivi, mikh
nail (finger)	zifr (<i>pl. aẓfār</i>)	nākhun	tirnāq
narrow	dhaiyiq	tang	dār
naval	bahri	daryā’i, bahri	bahri
navigate	qād al-markab, yaqūd al-markab	kashtī rāndan, rān	qapudanliq, étmék
navigation	milāḥah, qiyādat al-markab	rāh barī-yi-jahāz	qapudanliq
navy	uṣṭūl, ‘imārah bahriyah	jahāzāt	donanma
near	qarīb	nazd, nazdik	yaqen
necessary (it is)	wajab, yajib or lazim, yalzam	lāzim ast	lāzim, gérék
neck	raqabah	gardan	boyun
need (<i>v.</i>)	ihtāj ila, yahtāj ila	muhtāj shudan, shau	muhtāj olmaq, istémék
needle	ibrah	sūzan	iyné
neither . . . nor	lā . . . wa-lā	nah . . . nah	né . . . né
net	shabakah	dām	āgh

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
never	abadan	abadan (<i>followed by nā, not</i>)	hīch (+ <i>negative</i>)
new	jadīd	nau	yēni
newspaper	jarīdah (<i>pl. jarā'id</i>)	rūznāmeḥ	ghazéta
nice	malīḥ	laṭīf, khush	iyi, güzél, tatle
night	lailah	shab	géjé
no	lā	nā-khair	khair, yoq
noon	zuhr	zuhr	öilén
no one	lā wāḥid	hīch kas	hīch bir kimsé
north	shamāl	shamāl	yildiz, shémāl
northern	shamālī	shamālī	shémālī
nose	anf	dimāgh, bīnī	būrūn
nosebag	'alīqah, mīkhlāt	tūbreh	yém torba-si
not	mā (<i>with verbs</i>), ghair (<i>with adj.</i>)	nā	déyil, mā (<i>with verbs</i>)
not at all	lā lā	hargiz (<i>followed by negative</i>)	hīch, assla (<i>both followed by negative</i>)
nothing	lā shai	hīch (<i>with negative</i>)	hīch bīr shei
not yet	lis-sā' mā (<i>followed by verb</i>)	tā-bi-ḥāl	daha déyil, henūz déyil
November	Tishrīn ath-thāni	Tishrīn-i-sānī	téshrīn-i-sāni
now	alān	aknūn, alān	shimdi
nowhere	mā [+ <i>verb</i>] fi aiy makān	hīch jā	hīch bir yérde
number (<i>n.</i>)	'adad	'adad	'aded, miqdār
oar	miqdāf	pārū	kürék
oats	dausar, shūfān	dausar	yulaf
obedient	ṭā'i', muṭī'	muṭī'	itā'atle
obstinate	'anīd	sar-kash, khud-sar	'inādji
October	Tishrīn al-auwal	Tishrīn-i-auwal	Téshrīn-i-évvél

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
officer	dhābiṭ	ṣāhib- manṣab	zābit
often	mirāran	bārḥā, mukar- raran	choq kerré, choq défa'
oil	zait	roghan	yagh
old (ancient)	'atīq	kohneh	éski, qadīm
old (worn)	bāli	kohneh, far- sūdeh	éski
old man	shā'ib, 'ajūz	pīr	ikhtiyār
old woman	'ajūz	pīreh zan	qoja qāri
omelet	'ijjah, khāgīnah	khāgīneh	qaighana
on	'ala	bālā'ī	ustundé, uzérindé
once, twice, thrice	marrah, mar- ratain, tha- lāth marrāt	yak, dū mar- tabeh, seh martabeh	bir kerré, iki kerré, üç kerré
only (<i>adv.</i>)	faqat	ū bas (<i>a' end</i>)	anjaq, yaleniz
open (<i>adj.</i>)	maftūḥ	kushād, maf- tūḥ, wāz shudeh	achiq
open (<i>v.</i>)	fataḥ, yaftaḥ	kushādan, kushād	achmaq
or	au	yā . . . yā	yā . . . yākhod
order (<i>v.</i>)	amar, ya'mur	farmūdan, farmā	émr étmék, buyūrmaq
order (<i>n.</i>)	amr (<i>pl.</i> awā- mir), nizām	farmān, amr	émr, firmān
our	-nā (<i>suffix</i>)	-i-mā (<i>suffix</i>)	bizim
ours	māl-nā, lanā	māl-i-mā	bizimki
out of	min	bīrūn, az an- darūn	-dan, -dan di shāri
outpost	qarāwul	qarāwul	iléri qol
outside	khārijan	bīrūn	disharda
oven	tannūr	tannūr	furun
overboard	fil-baḥr	dar āb uftādeh	dénizé düsh müsh

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
owing to, be- cause of	li-ajl	az barāyi	-ichin, -delayi, sébébilé
ox	baqar	nar gāu	üküz
pack-saddle (camel)	khurj al-jamal	khurjīn-i- shutur	dévé khamūti
pack-saddle (mule)	khurj al-baghl	khurjīn-i-qātir	sémér
pain	waja‘	dard	āghri
Palestine	Filistīn	Filistīn	Filistīn
paper	waraq, qirtās	kāghaz	kyāt
pass (defile)	manfad (<i>pl.</i> manāfid)	tang, gardaneh	boghaz, géchid
passage	mimarr	guzār-gāh	géchid
password	ism al-lailah	ism-i-shab	parola
path	maslak (<i>pl.</i> ma- sālik), darb (<i>pl.</i> durūb)	rāh-i-kūchak	iz, méslék
patrol (<i>n.</i>)	hāris, nātūr	pāsbān	qol
patrol (<i>v.</i>)	haras, yahrus	pāsbānī kar- dan, kun	dolashmaq
pay (<i>n.</i>)	ujrah, shah- riyah	ujreh, mawā- jib	ma‘āsh
pay (<i>v.</i>)	dafa‘, yadfa‘	adā kardan, kun	parasene vér- mék, ma‘āsh vérmék
peace	şulh	şulh	sulh
pen	qalam	qalam	qalém
pennant	‘alam		filandéré
people	nās	mardum	khalq, éhāli
pepper	filfil	filfil	bibér
periscope	periskop		périskop, dürbin
Persia	Bilād al-‘Ajam	Īrān	‘Ajemistān
Persian	‘Ajami, Fārisi	Īrānī	‘Ajemi

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
photograph (<i>n.</i>)	fotogrāf, şūrah	'aks	fotograf
pickaxe	mi'wal	bīl, tīsheh	qazma
picket (<i>n.</i>)	khafar	ṭalāyi'	qaraqol
pier	raşīf, musan- nāyah	iskaleh	iskélé
pig	khinzīr (<i>pl.</i> khanāzīr)	khūk, khinzīr	domūz
pillow	wisādah, makhaddah	mukhaddeh, bālish	yasdiq
pilot (<i>n.</i>)	qā'id al-mar- kab	rāh numā (-yi-jahāz)	qélaghuz
pilotage	qiyādah	ujrat-i-kashtī- bānī	qélaghuz üjréti
pincers	kalbah	ambur	késsaj
pistol	ṭabānjah	pīshṭāv	tabānja
place (<i>n.</i>)	makān (<i>pl.</i> amākin)	makān, jā	yér
plain (<i>n.</i>)	ṣaḥrā, maidān	dasht, ṣaḥrā	ova
plant (<i>n.</i>)	nabāt (<i>pl.</i> nabātāt)	nabāt	fidān
plate	ṣaḥn (<i>pl.</i> ṣuḥūn)	būshqāb, zarf	tabaq
play (<i>v.</i>)	la'ib, yal'ab	bāzī kardan, kun	oinamaq
pleasant	laṭīf	khush, laṭīf	hosh, lézīz
pleased, to be	imbasat, yam- basit	masrūr shu- dan, shau	sévinmék, mémnūn ol- maq
plough (<i>n.</i>)	miḥrāth, fad- dān	shukhm	saban
plunder (<i>v.</i>)	nahab, yan- hab	chāpīdan, chāb or tārāj kardan, kun	yaghma étmék
pontoon	jīsr naqqāl	jīsr	tombaz

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
pony (bag-gage)	hişān al-ḥaml, kidish	yābū	yük béghire
pool	birkah, ḥaudh	ḥauz	hauz
poor	faqīr, miskīn	darvīsh, miskīn	fuqara (<i>sing.</i> faqīr)
pork	lahm khinzīr	gūsht-i-khūk	domuz éti
port	mīnā (<i>pl.</i> mawānī)	bandar	liman
port (of ship)	jānib al-aisar		gémīnin iskélé tarafe
hard a-port	ila jānib al-aisar		alabanda iskélé
porthole	shubbāk		lumbar déliyi
post-office	bōstah	pōst-khāneh	posta-khāné
potato	baṭāṭah	sīb-i-zamīn	patātés
pour out	sakab, yaskub	rīkhtan, rīz	dökmék
powder (gun-)	bārūd	bārūd	bārūt
praise (<i>v.</i>)	madaḥ, yam-daḥ	sitūdan, sitā	médh étmék
prefer	fadhḍhal, yufadhḍhil	tarjīh dādan, deh	térjīh étmék
prepare	ista'add, yasta'idd	āmūdan, āmā or hāzīr kardan, kun	hāzirlamaq
pretty	jamīl	khushnumā, qashang	güzél, dilbér
price	thaman	qīmat	fiyyét
prison	ḥabs	zindān	ḥabs-khāné
private (soldier)	nafar	nafar	néfér
private (room, &c.)	khuṣūṣi	khuṣūṣī	khusūsi
projectile	qadhīfah (<i>pl.</i> qadhā'if)	khumpareh	mérmi

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
promise (v.)	wa'ad, ya'id	wa'deh dā-dan, deh	söz vérmék, va'd étmék
propeller	laulab, daulāb	charkh	vaporun per-vanəsi
province	wilāyah	vilāyat	vilāyét
pump (n.)	ṭulumbah	ṭulumbeh	tulumba
punish	'āqab, yu'āqib	sazā dādan, deh or mujāzāt dādan, deh	mujāzāt étmék
pursue	tatabba', ya-tatabba' or ta'aqqab, yata'aqqab	ta'aqqub kar-dan, kun	qoghalamaq ta'qib étmék
put	ḥaṭṭ, yaḥuṭṭ or waḍḥa', yaḍḥa'	guzāshtan, guzār	qomaq
puttee	lifāfat ar-rijl	bastan-i-pā	dolaq
quarantine	maḥjar ṣiḥḥi, qarantinah	qarantīn	qarantina
quarter (v.)	askan, yuskin	manzil dādan, deh	oturtmaq
quay	raṣīf	iskaleh	rikhtem, is-kélé
quick	sarī'	zūd	chabuk, téz
quickly	sarī'an	zūd, bi-zūdi	chabuk
quiet	hādi	sākit, ārām	rāhat, ūslū
quilt	liḥāf	liḥāf	yorghān
raft	kalak	kalak	kélék sal
rails	khuṭūṭ ḥadīdīyah	'amūd-hā-yi-rāh-i-āhan	raī
railway	sikkat al-ḥadīd	rāh-i-āhan	démir yol, chemin de fer, trén
railway-station	maḥaṭṭah	maḥaṭṭah	mahatta, istasion
rain (n.)	maṭar	bārān	yaghmūr
ram (v.)	naṭaḥ, yantiḥ	kūbīdan, kūb	basmaq
range	masāfah, mada	āmāj, masāfat	atem

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
rarely	nādiran	nādiran	nādiran
read	qara, yaqra	khāndan, khān	oqumaq
ready	hādhir	āmādeh, hāzir	hāzir
rear	warā	'aqab	géri, arqa
rearguard	mu'akhhkar al-'askar	'aqab-i-lashkar	dumdār
reckless	jasūr, ghair muktarith	bī-parwā, bī-i'tinā	mutéjassir
recruit	'askari jadid	sarbāz-i-tāzeh	yéni qur'a, 'ajemi néfér
red	aḥmar	qirmiz, surkh	germeze
refuse (v.)	aba, ya'ba	inkār kardan, kun	istémémék
regiment	ālai, fauj	fauj	ālāi
regret (v.)	asif li-, ya'saf li-	afsūs khurdan, té'essuf étmék	
regulation	qānūn (<i>pl.</i> qawānīn)	khur qānūn, qā'ideh	nizām, usūl
reinforcements	madad	madad, qu- shūn-i-tāzeh	imdād, istinādāt
reins	'inān, zimām	'inān	gém qāyishi, dizgin
release (v.)	aṭlaq, yuṭliq	rahānīdan, rahān	salevérmék
reliefs	madad	madad	tébdilāt
remain	baqi, yabqa	māndan, mān	qalmaq, durmaq
remember	tadhakkar, yatadhakkar	yād dashtan, dār	khātirlamaq
repeat	karrar, yukarrir	takrār kardan, tékrār sōilémék	
report (v.)	qarrar, yuqarrir	kun iṭtilā' dādan, deh	taqrīr étmék, ishāré étmék, khaber vérmék
report (n.)	taqrīr	iṭtilā'	taqrīrāt

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
reserve (<i>n.</i>)	radif	radif	redîf, ihtiyât
resistance	muqāwamah, difā'	muqāwameh	muqāwémé
resolute	thābit, 'āzim	bā 'azm	sābit qadém
rest (<i>v.</i>)	istarāh, yastariḥ	ārāmīdan, ārām	istirāhat ét- mék
restaurant	maṭ'am	āshpaz-khāneh	loqanda
result	natijah	natijeh	netījé
retreat (<i>n.</i>)	taqahqur	'aqab nisha- stan	géri chikilish, rij'at
retreat (<i>v.</i>)	adbar, yudbir	'aqab raftan, rau	géri chikilmék, rij'at étmék
return (<i>v.</i>)	raja', yarji'	bāz āmadan, āi	dönmék, géri gélmék
revolution (revolt)	thaurah	thaureh, haya- jān	téhavvul
revolver	musaddas, warwar	shīsh-lüleḥ	alti-patlar, révolvér
rheumatism	waja' al-mafā- ṣil	dard-i-mafāṣil	yél
rib	dhil' (<i>pl.</i> dhulū')	ustukhān-i- pahlū	gaburgha
rice	ruzz	birinj	pirinj
rich	ghanī	tawāngar, mutamaul	zəngin
ride	rakib, yarkab	suwār shudan, shau	binmék, āt ilé gitmék
riding-horse	ḥiṣān ar- rukūb	asp-i-suwārī	binék āti, āt
rifle	bunduqiyah	tufang	tufénk
right	yamīn (right hand), muṣīb (correct)	rāst	doghru (straight) sāgh (right hand)
right away	hālan !	birau ! bis- mi'llāh !	doghrudan- doghruya
right (of direc- tion)	mustaqīm, 'adl	rāst	-é (<i>suffix</i>) yöl

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
ripe	nādhij, rā'ij	rasīdeh, pukhteh	ōlmush
river	nahr (<i>pl.</i> anhār)	rūd-khāneh	néhir, sū
road	ṭarīq (<i>pl.</i> ṭuruq)	rāh	yol
road (camel)	ṭarīq al-jimāl	rāh-i-shutur	dévé yolu
road (mule)	ṭarīq al-bighāl	rāh-i-qātir	qāter yolu
road (metalled)	shāri' muzallaṭ	shōseh	shōsé
road (unmetalled)	ṭarīq wa'ir	rāh-i-wa'ir	'adi yol
rock (<i>n.</i>)	ṣakhr (<i>pl.</i> ṣukhūr)	sang	qaya
rocky	ṣakhri, wa'ir	sang-lākh	qayali
roof	saqf	bām	dām
room	hujrah	ūtāq	oda
root	aṣl	bīkh	kük
rope	ḥabl (<i>pl.</i> ḥibāl)	rismān	ip, hālat (cable)
rotten	fāsid, (smelling) muta'affin	pūsīdeh	chürük
rough	khashin	durusht, zibr	puruzlu, sért dalghali (sea)
round	mudauwar	mudauwar, gird	yuvārlaq, déyirmi
row (<i>v.</i>)	jadhaf, yajdhuf	pārū zadan, zan	kürék chékmék
ruddy	aḥmar	qirmizī, surkh	qezel
ruins	kharābāt	wairānhā	vīrāné
run	jara, yajri	dawīdan, dau	qoshmaq
rushes	qaṣab	nai	qamesh
Russia	Rūsīyah	Rūs, Urūs	Rūsya
Russian	Rūsi	Rūsī	Moskov, Rūsyāle
sack	kīs	juwāl	turba
sad	ḥazīn	ghamgīn	mükéddér, mahzūn
saddle (<i>n.</i>)	sarj	zīn	éyér

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
saddle (<i>v.</i>)	asraj, yusrij	zīn kardan, kun	éyérlemék, éyér vurmaq
saddlebag	khurj	khurjīn	heibé
safe (<i>adj.</i>)	āmin	bi-salāmat	sāgh
sailing-vessel	safinah shurā'iyah	kashtī-yi-bādī	yélkén gémisi
sailor	mallāh	kashtī-bān, mallāh	gémiji
sails	qilā'	bād-bān, shirā'	yélkénlér
salt	milāh	namak	tuz
salute (<i>n.</i>)	taḥiyah, salām	taḥiyeh, salām	selām
salute (<i>v.</i>)	sallam, yusallim	salām kardan, kun	selāmlamaq
sally out (<i>v.</i>)	kharaj 'ala, yakhruj 'ala	khārij shudan, shau	chiqish étmék
same	mithl, naẓīr	hamīn, barā- bar	bir, farqsez, 'aini
it is the same	hua bi-'ainihi	hamīn-ast	ikisi bir
this is the same as that	hādha mithl <u>dhāk</u>	īn bā ān yakīst	ikisi bir
sand	raml	rīg	qūm
sandbank	shaṭṭ ramli	pushte-yi-rīg	sighliq
sandy	ramli	rīgī	qūmlu
Saturday	Yaum as-sabt	Shambelh	Jum'a-értési
saucepan	qidr	dīgcheh	ténjéré
save	anqadh, yunqidh	rahānīdan, rahān or najāt dādan, deh	qurtarmaq
saw (<i>n.</i>)	minshār	arreh	déstéré
say	qāl, yaqūl	guftan, gūi	söilémék, dé- mék
I say	aqūl	mī-gūyam	déyorim
thou sayst	taqūl	mī-gū'i	déyorsin

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
he says	yaqūl	mī-gūyad	déyor
we say	naqūl	mī-gū'im	déyoriz
you say	taqūlūn	mī-gū'id	déyorsiniz
they say	yaqūlūn	mī-gūyand	déyorlér
I shall say	sa-aqūl	khāham guft	déyéjéyim
I said	qult	guftam	dédim
scarcely	nādiran	bi-dushwārī	nādiran, hé- man, güch hāl ilé
scatter	nathar, yan- thur	pāshīdan, pāsh	dāghitmaq, sachmaq
school	maktab (<i>pl.</i> makātib)	maktab, mad- raseh	méktéb
scissors	miqaṣṣ	miqrāz	maqass
scout (<i>n.</i>)	rā'id (<i>pl.</i> ruwwād)	jāsūs	izji
screw (pro- peller)	laulab, daulāb	charkh	vaporun pervānesi
sea	baḥr	daryā	déniz
searchlight	nūr barqi	chirāgh-i- barqī	késhf-i-ziyā
season	faṣl	faṣl	mévsim
sea-wall	musannāyah		déniz rikh- témé, dalgha qiran
secret (<i>n.</i>)	sirr (<i>pl.</i> asrār)	sirr, rāz	sirr
secret (<i>adj.</i>)	sirri	sirrī	sirr, gizli
secretary	kātib	dabīr, kātib	kyātib, sirr kyātibi (private secretary)

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
secretly	sirri, makh-fiyan	makhfi, panhān	gizli
see	shāf, yashūf or ra'a, yara	dīdan, bīn	görmék
seek	ṭalab, yaṭlub or fattash, yufattish	justan, jū	aramaq
seize	qabadh 'ala, yaqbīdh 'ala	giriftan, gīr	zaht étmék, tūtmaq, girift étmék
self	nafs (<i>pl.</i> nufūs)	khud, khīsh	kéndi
sell	bā', yabī'	furūkhtan, furūsh	satmaq
semaphore	simafor	ishāreh namā'i	sémafor
send	arsal, yursil	fristādan, frist	göndérmék, irsāl étmék
sentry	ghafir (<i>pl.</i> ghufarā)	qarāwul, pāsban	nöbétji
separate (<i>trans.</i>)	farraq, yufarriq	tafriqeh kar-dan, kun	ayirmaq
September	Ailūl	Mihr-māh, Ailūl	Eilūl
sergeant	chāwūsh	wakīl	chāwūsh
servant	khādim	naukar	hizmétji
serve	khadam, yakhdim	khidmat kar-dan, kun	hizmét étmék
sew (<i>v.</i>)	khaiyat, yukhaiyit	dūkhtan, dūz	ishini görmék dikmék
sextant	suds dā'irah	uṣṭurlāb	sextant
shade (<i>n.</i>)	zill	sāyeh	gülgé, sāyé
shake	nafadh, yan-fudh	takān dādan, sārsmag deh	

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
shallow	qīsh, <u>dhahl</u>	pāyāb	sigh
shave (v.)	halaq, yaḥliq	tirāshidan, tirāsh	trāsh étmék
sheep	kharūf (<i>pl.</i> khirfān)	gūsfand	qoyun
sheet	sharshaf	chādar	charshaf
shell (n.)	qumbulah (<i>pl.</i> qanābil)	khumpareh	mérmi, qum- bara
shell (v.)	rama bil-qanā- bil, yarmi bil- qanābil	khumpareh an- dākhtan, an- dāz	qumbara atmaq
ship	markab	kashtī, jahāz	séfīné, gémi
shoe (n.)	na'ī	kafsh, pīneh	papush, qun- dura
shoe (v.)	na'al, yuna'il	na'ī band kar- dan, kun	na'lamaq
shoot	rama, yarmi or qauwas, yuqauwis	gulūleh an- dākhtan, an- dāz or tīr an- dākhtan, andāz	tufénk atmaq
shop	dukkān (<i>pl.</i> dakākīn)	dukkān	dükyān
shore	sāḥil	kinār, sāḥil	sāhil, sū kénāre
short	qaşır	kūtāh	qissa
shot	ramyah, iṭlāq	tīr, gulūleh	qurshun, sachma
shoulder	katif (<i>dual</i> katifain)	dūsh	omuz
shout (v.)	sāḥ, yaşih	bāng zadan, zan	baghermaq
shovel (n.)	miḥfar	pārū	kürék
show (v.)	aẓhar, yuẓhir	namūdan, numā	göstérmék
shrapnel	shrapnel	shrapnel	shrapnel

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
shut (<i>see</i> close)	sadd, yasudd	bastan, band	qapamaq
sick	marīdh	bīmār, nā-khush	khasta, keifsez
side	jānib	pahlū	yān, jānib
siege	muḥāsarah	muḥāsareh	muḥāséré
sight (of gun)	nishān	nishāngāh	nishān-gyāh
signal	ishārah	ishārat	ishārét
silent, to be	sakat, yaskut	khāmūsh shudan, shau or sākit shudan, shau	sésiz olmaq or sukūt olmaq
silting	radm, imtilā	gil-band	qum vé chamur séddi
silver (<i>adj.</i>)	min fidhdhah	nuqrā'ī	gümüş
silver (<i>n.</i>)	fidhdhah	nuqreh	gümüş
since	mundhu	tā, az waqti keh	-dan béri(<i>suffix</i>)
sink (<i>trans.</i>)	gharraq, yugharriq	gharq kardan, kun	bātirmaq
sink (<i>intrans.</i>)	ghariq, yaghraq	gharq shudan, shau	bātmaq
sister	ukht (<i>pl.</i> akhawāt)	khāhar, hamshīreh	qiz-qardash
sit	jalas, yajlis	nishashtan, nishīn	oturmaq
skilful	māhir	hunarmand, zaring	hünérli
skin (inflated)	qirbah	mashk	sāl, kélék
slaughter (<i>n.</i>)	dhabh	kushtār	qirim
slaughter (<i>v.</i>)	dhabah, yadhbah	kushtan, kush	késmék, hélāk
sleep (<i>n.</i>)	naum	khābīdan	üyqū
sleep (<i>v.</i>)	nām, yanām	khābīdan, khāb	üyūmaq
sleeve	kumm (<i>pl.</i> akmām)	āstīn	kol
slow	baṭī	yawāsh	yavāsh

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
slowly	yawāsh, 'ala mahl	āhisteh	yavāsh
small	ṣaghīr	kūchak	ufaq, kūchük
smaller	aşghar	kūchaktar	daha kūchük
smell (<i>n.</i>)	rā'ihah	bū	qoqū
smell (<i>trans.</i>)	shamm, yashumm	bū kardan, kun	qoqlamaq
smell (to stink)	ta'affan, yata'affan	muta'affin shudan, shau	qoqmaq
smoke (<i>n.</i>)	dukhān	dūd	duman
smoke (<i>v. to- bacco</i>)	sharib ad-duk- hān, yashrab ad-dukhān	tutūn kashī- dan, kash	tütün ichmék
smooth	amlas	şāf, hamwār	düz
snow (<i>n.</i>)	thalj	barf	qār
soap	şābūn	şābūn	şābūn
soft	nā'im	narm	yemushaq
soldier	'askari, jundi	sarbāz	'askér
solid	şalb, matīn	mujassam	métin, qavi
sometimes	ba'dh al- auqāt, ihyānan	ba'zī auqāt, ahyānan	ba'ze kerré
somewhere	fi makānin mā	yak jā	bir yére, bir yérde
son	ibn	pisar	oghl
song	ghinā (<i>pl.</i> aghāni)	āwāz	türkü, sharqi
soon	'an qarīb	zūd	chabuk, téz
sound (<i>adj.</i>)	sālim	sālim	sāgh, saghlam
sound (noise)	şaut (<i>pl.</i> aşwāt)	şadā	sés
sounding (water)	miqyās al-mā	miqyās	isqandil étmése
soup	shurbah	āb-i-gūsht	chorba
sour	hāmīdh	turush	ékshi
sour milk	laban	māst	yoghurt
south	janūb	janūb	jénüb, qibla
southern	janūbi	janūbī	jénūbī
spade	mişāt	bīl	bél

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
spark	sharārah	akhgar, sharāreh	qighiljim
speak	takallam, yatakallam	guftan, gūi	söilémék
specially	khuṣūṣan	khuṣūṣan	bāshlija
speed	sur'ah	sur'at	sür'at
spirits	'araq	'araq	rāqi
spoon	mal'aqah	qāshūq	qāshiq
spring (season)	rabī'	bahār	ilk behār
spring (of water)	'ain mā	chashmeh	punar, cheshmé
spur	mihmāz	mihmīz	mahmuz
squadron (nautical)	dunanmā	daste-yi-kash- tiḥā-yi-jangī	donanma, filo
squall (wind)	nau (<i>pl.</i> anwā)	bād-i-tund	bora
square (<i>adj.</i>)	murabba'	murabba'	durt kushéli
stable	iṣṭabl, akhūr	ṭawīleh	akhur
staircase	daraj	nardbān, palleh	mérdivén
stalks (of millet or maize)	sāq, qaṣab	shākhkeh	sāplar
stallion	fahl (<i>pl.</i> fuḥūl)	asp-i-nar	aighir, āt
stand (<i>v.</i>)	waqaf, yaqif <i>or</i> qām, yaqūm	istādan, ist	ayaqda dur- maq, dikilmék
star	najm (<i>pl.</i> nujūm)	sitāreh	yildiz
starboard	jānib al-aiman	rāst	sanjaq, yale
hard a-star- board	ila jānib al- aiman		alabanda yale
state (condi- tion)	ḥāl (<i>pl.</i> aḥwāl)	ḥāl	hāl
station (rail- way)	maḥaṭṭah	maḥaṭṭah	mahatta, istasion

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
steal	saraq, yasruq	duzdīdan, duzd	chālmaq
steam	bukhār	bukhār	duman, bukhār
steamer	markab bu- khāri	kashti-yi-bu- khāri	vapor
steel (<i>n.</i>)	būlād	pūlād	chélík
steel (<i>adj.</i>)	min būlād	pūlādī	chélík
steering-gear	ālat al-idārah		dūmén-ālāte
stem (of ship)	muqaddam al- markab	pīshi-yi-jahāz	gémnin bashe
stern	mu'akhkhar al-markab	pusht-i-jahāz	gémnin qichi
steward	khādim		qamarot
stick (<i>n.</i>)	'aṣa, qadhīb	chūb-i-dastī	deinék, sōpa
still (<i>adv.</i>)	ilalān	hanūz, tā bi- hāl	dahā, henūz
stirrups	rikāb	rikāb	uzengi
stock (of a gun)	qundaq (<i>pl.</i> qa- nādiq)	kundeh	qundag
stoker	nāri, āṭashji	ādashī	vaporun atēshjisi
stomach	ma'idah	shikam	qaren, mi'dé
stone	hajar	sang	tāsh
stony	hajari	sang-sār	tāshli
stop (<i>intrans.</i>)	waqaf, yaqif	istādan, ist	durmaq
stores	dhakhīrah, dha- khā'ir	zakhīreh	tédārūkyāt, lévāzimāt
storm	zauba'ah	ṭūfān	firtina
stormy	'aṣif	ṭūfānī	firtinali
straight	'adil, mus- taqīm	rāst	doghru
strange	gharīb	gharīb	yabānji, gharīb
strap	sair	tasmeh	qāish
strategy	fann al-ḥarb	fann-i-muhā- rabeh	sévq ul-jeish
straw	tibn	kāh	samān

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
stream	nahr ṣaghīr	jūi	chāi, sū
street	shārī'	khiyābān	soqāq
strength	quwwah	zūr	quvvét
strike	dharab, yadhrib	zadan, zan	vurmaq
strike camp	qala' al-khi- yam, yakhla' al-khiyam	chādirhā kandan, kun	chādirleri qaldirmaq
string	khaiṭ	rīsmān	ip
strong	qawī	qawī	quvvétli
stupid	balid, aḥmaq	nā-dān	'aqlsez, shashqen
submarine	ghauwāṣah	ghauwāṣeh	tahtu'l-bahr
suddenly	bil-marrah, fuj'atan	nāgāh	āp-ānsez, bir- dén-biré
sugar	sukkar	qand, shakar	shékér
sugar-cane	qaṣab as- sukkar	nai-shakar	shékér qāmishi
suitable	muwāfiq	munāsib	münāsib, laiq
summer	ṣaif	tābistān	yaz
sun	shams	āftāb	günesh
Sunday	Yaum al-aḥad	Yekshambeh	Bāzār-günü
sunrise	ṭulū' ash- shams	ṭulū'-i-āftāb	gün doghusu
sunset	ghurūb ash- shams	ghurūb-i-āftāb	ghurūb, gün batese
supplies	ma'ūnah, ta'- diyah	zakhīreh	lévāzimāt
surgeon	jarrāḥ	jarrāḥ	jarrāḥ
surrender	sallam, yusal-	sipur dan,	téslīm étmék
(trans.). See also 'give in'	lim	sipār	
suspected	maznūn	maznūn	shubhéli
sweet	ḥulw, 'adhḥ (water)	shīrīn	tatle
swim (v.)	sabah, yasbah	shināwarī kar- dan, kun	yüzmék
sword	saif (pl. suyūf)	shamshīr	qiliç

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
Syria	Bilād ash-Shām, Sūriya	Shām	Shām
table	mā'idah	miz	trébézé, sofrā
tactics	tadābīr al-ḥarb	tadābīr-i-ḥarbiyeh	tértīb ul-jeish
take	akhadh, ya'khudh	giriftan, gir	ālmaq
talk (v.)	takallam, yatakallam	ḥarf zadan, zan <i>or</i> guft-u-gū kardan, kun	gonūshmaq
tall	ṭawīl	buland bālā	ūzūn boilu
tame	alif, ahli	dast-āmūz	térbiyé
target	hadaf, nishān	nishān	nishān
taste (v.)	dhāq, yadhūq	chashīdan, chash	tātmaq
tea	shāi	chāi	chāi
teach	'allam, yu'allim <i>or</i> darras, yudar-ris	ta'līm dādan, deh <i>or</i> āmūkhtan, āmūz	örétmék
tear (v.)	mazzaq, yumazziq	pāreh kardan, kun	yertmaq
telegraph (n.)	telegrāf	telegrāf	télégrāf
telegraph-office	telegrāf-khānah	telegrāf-khāneh	télégrāf-khāné
telescope	nāẓūr	dūrbīn buzurg	dūrbīn
tell	qāl li-, yaqūl li-	guftan, gūi	söilémék
tent	Khaimah (<i>pl.</i> khiyam)	khaimeh, chādir	chādir
tent peg	watad (<i>pl.</i> autād)	mīkh	chādir qāzighe
tent rope	ṭanāb (<i>pl.</i> aṭnāb)	rasan, ṭanāb	chādir ipi
than	min	az	-dan (<i>suffix</i>)
thank	shakar, yashkur	shukr kardan, kun	téshékkūr étmék
that (<i>conj.</i>)	ann	ki	ki
that (<i>pron.</i>)	dhālik (<i>fem.</i> tilk)	ān	o, ol

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
thaw (<i>n.</i>)	dhawabān	gudāz-i-yakh	qārlaren érimési
thee	-ka (<i>fem.</i> -ki)	tu-rā	sana (<i>dat.</i>), séni (<i>accus.</i>)
their	-hum, -hini (<i>fem.</i> -hunna, -hinna)	-i-īshān (<i>suffix</i>)	onlaren
theirs	mālhum	māl-i-īshan	onlaren-ki
them	-hum, -him (<i>fem.</i> -hunna, -hinna)	īshān-rā	onlara (<i>dat.</i>), onlare (<i>accus.</i>)
then (at that time)	‘ind dhālik	dar ān waqt	ol vaqet
then (after that)	thumma	ba’d az ān	ondan sōra
thence	min hunāk	az ānjā	oradan
the other(s)	al-ākhar (<i>pl.</i> al-ākharūn), <i>fem.</i> al-ukhra (<i>pl.</i> al-ukhar)	digar, digarhā	o biri, o birléri
there	hunāk	ānjā	orada
thermometer	mizān al- harārah	miqyās-i- harārat	mizān-i- harārét
these (<i>pron.</i>)	hā’ulā	īnhā	bunlar
they	hum (<i>fem.</i> hunna)	īshān	onlar
thick	ghalīz	kuluft, ambūh (<i>of trees, &c.</i>)	qālen
thief	harāmi	duzd	khirsiz
thimble	kushtubān	angushtāneh	yüksük
thin	raqīq	lāghar, nāzik	injé, za’if
thine	-ka (<i>fem.</i> -ki)	māl-i-tū	séninki
thing	shai	chiz	shei
think	iftakar, yaf- takir	pindāshtan, pindār	düşünmek, zann étmek
thirst (<i>v.</i>)	‘atish, ya’tash	tishneh shu- dan, shau	sūsuz olmaq
thirsty	‘atshān	tishneh	sūsuz
this	hādha (<i>fem.</i> hādhīhi)	īn	bū

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
thither	ila hunāk	tā ānjā	oraya
those (<i>pron.</i>)	ūlā'ik	ānān, ānhā	onlar
thou	anta	tū	sén
thread	khait (<i>pl.</i> khuyūt)	nakh, rishteh	iplik
threaten	haddad, yu- haddid	tahdīd kardan, téhdīd étmék	
throat	ḥalq	galū	boghaz
thunder	ra'd	ra'd	gök gürleməsi
Thursday	Yaum al- khamis	Panjshambeh	Pérshe mbé
tick (<i>insect</i>)	qurād		kéné
tidal	dhū madd	ṣāhib-i-madd ū jazar	
tide	madd wa-jazr	madd ū jazar	sūyun qabar- masi ve chékil- mési
tie (<i>v.</i>)	'aqad, ya'qud	bastan, band	baghlamaq
tight	ma'qūd	sift, tang	siqi
till	ḥatta	tā	-é -qadar
time	waqt (<i>pl.</i> auqāt)	waqt, gāh, zamān	vaqet
timid	khā'if	tarsān, tarsū	qorqaq
tired	ta'bān	khasteh	yorghun
to	ila	bi-	-é, -a (<i>suffix</i>)
tobacco	dukhān	tambākū, tutūn	tütün
to-day	al-yaum	imrūz	bū gün
toe	usbu' al-qadam	angusht-i-pā	ayaq parmaghi
to-morrow	bukrah	fardā	yaren
tongue	lisān (<i>pl.</i> alsinah)	zabān	dil

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
to-night .	al-lailah	imshab	bū gejë
tonnage	hamūlat al- markab	maḥmūl	gémnin tonélatase
too (also)	aidhan	ham	dakhi
tool	ālah (<i>pl.</i> ālāt)	ālat	ālét
tooth	sinn (<i>pl.</i> asnān)	dandān	dish
toothache	waja' al-asnān	dard-i-dandān	dish-āghrisi
top-boot	jazmah	chakmeh	chizmé
torpedo (<i>n.</i>)	lughm (<i>pl.</i> alghām)		torpil
touch (<i>v.</i>)	mass, yamass	dast zadan, zan <i>or</i> lams kardan, kun	doqunmaq
tough	ṣalb	sift,	sért, qate
towards	naḥw	sū-yi-	tarafina (<i>after the word</i>)
towel	fūṭah	dastmāl	haule, péshgîr
tower	burj (<i>pl.</i> burūj)	burj	qulé
town	madīnah	shahr, qaṣabeh (<i>small</i>)	shéhir
track	athar ṭarīq	rāhcheh	yol, iz
translate	tarjam, yutarjim	tarjumeh kar- dan, kun	térjumé étmék
translation	tarjumah	tārjumeh	térjumé
treacherous	ghaddār	ghaddār	khāin
tree	shajarah (<i>pl.</i> shajar)	dirakht	aghach
trench	khandaq (<i>pl.</i> khanādiq)	gaudāl, khandaq	héndéq, sipér
tribe	qabīlah (<i>pl.</i> qabā'il)	il, qabīleh	qabilé, 'ashīrét
trot (<i>v.</i>)	khabb, yakhabb <i>or</i> harwal, yuharwil	luk luk raftan	ris gitmék, ilgār gitmék
truce	hidnah	hidnat, tark-i- asliḥah	mutéréké

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
truck	‘arabah	‘arabiyeh	vagon
true	ṣaḥīḥ	rāst	doghru, ṣaḥīḥ
try	jarrab, yujar- rib	kūshīdan, kūsh	chaleshmaq, tējribé étmék
Tuesday	Yaum ath- thalāthā	Sehshambeh	Sāle-günü
tug (boat)	markab jarrār	jahāz-kash	remorqueur, chatana
Turk	Turki (<i>pl.</i> Atrāk)	Turk, ‘Osmānī	‘Osmānle, Turk
Turkey	Turkiyā	Rūm, Khāk-i- ‘Osmānī	Mémālik-i- ‘osmāniyé, Turkiya
turn back	raja‘, yarji‘	bar gardīdan, gard	géri dūnmék
turret	burj (<i>pl.</i> burūj)	kungureh	top qulése
unconscious	maghshi ‘alaiḥ	bī-hūsh	baighin
under	taḥt	zīr	altinda
understand	fahim, yafham	fahmīdan, fahm	anlamaq
under way	musāfir	rawāneh	harékétdé olan gémi
undressoneself	khala‘ ath-thi- yāb, yakhla‘ ath-thiyāb	rakht kandan, kan <i>or</i> lukht shudan shau	soyunmaq
unexpected	ghair munta- zar	nāgahān	umūlmamish
uniform (soldier’s)	kiswat ‘askarī- yah	rakht-i-nizāmī	forma
unjust	zālim	bī-insāf, sitamkār	zālim, insāfsez
unlucky	ghair maimūn	bad-bakht	bakhtsez, zévalé
unpleasant	thaqīl, ghair laṭīf,	nāpasand	nakhosh
unsuitable	ghair munāsib	nā-muwāfiq	yaramaz

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
untrue	ghair ṣaḥīḥ	durūgh (lie)	yalān (lie) ; doghru déyil
us	-nā (<i>suffix</i>)	mārā	bizé (<i>dat.</i>), bizi (<i>accus.</i>)
use (v.)	ista'mal, yas- ta'mil	isti'māl kar- dan, kun <i>or</i> bikār burdan, bar, bā fā'idēh, sūd- mand	qullanmaq fā'idéli
useful	mufīd	bi-fā'idēh	fā'idé-sez, bosh, yaramaz
useless	ghair mufīd		
usually	'ādatan	'ādatan	'ādetan, éksériya
vain, in	'abathan	'abath	nāfilé
valley	wādi	arreh	déré
valuable	thamīn	qīmatdār	qīmétli
veal	laḥm 'ijl	gūsht-i- gūsāleh	dana éti
vegetables	mukhadh- dharāt	sabzī	sébzévāt
vengeance	tha'r, intiqām	intiqām	intiqām
verbally	shifāhan	zabānī	shifāhan
very	jiddan, kathīr	bisyār	pék, choq
victory	naṣr	fath, ghalabeh	nusrét, ghalébé
victuals	ma'kūlāt	khurdanī, āzūqah	yéyéjék iché- jék
village	qaryah (<i>pl.</i> qura)	deh	köi
violent	shadīd, 'anif	sakht, tund	shiddétli
visit (n.)	ziyārah	ziyārat	ziyārét
visit (v.)	zār, yazūr	ziyārat kar- dan, kun	ziyārét étmék
voice	ṣaut (<i>pl.</i> aṣwāt)	āwāz	sés
voyage	safar al-baḥr	safar-i-daryā	déniz séféri

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
wade	khādh, yakhūdh	dar āb rāh raftan, rau	sū-da yürümék
waist	khīṣr	kamar	bél
wait	intazar, yan- taẓir	māndan, mān	béklémék
wake (<i>trans.</i>)	aiqaz, yūqiz	bīdār kardan, kun	oyandermaq
wake up (<i>intrans.</i>)	istaiqaz, yas- taiqiz	bīdār shudan, shau	oyanmaq
walk (<i>v.</i>)	masha, yam- shi	rāh raftan, rau <i>or</i> gardish kardan, kun	gézmék, yayan gitmék
wall	hā'it (<i>pl.</i> hītān)	dīwār	duwār
war	ḥarb	jang	harb, muhārébé
warm	hārr	garm	sijaq
warn	andhar, yun- dhir	āgāhī dādan, deh	ikhtār étmék, khaber vérmék
wash (<i>trans.</i>)	ghasal, yagh- sil	shustan, shui	yeqamaq
wash oneself	ightasal, yaghtasil	khudrā shustan, shui	yeqanmaq
waste (<i>trans.</i>)	dhaiya', yudhaiyi' <i>or</i> badhdhar, yubadhdhir	zāyi' kardan, kun	isrāf étmék
watch (<i>v.</i>)	ḥaras, yaḥrus <i>or</i> naṭar, yanṭur	nigāh dāshtan, dār	gözlémék, békjilik étmék
watch (<i>n.</i>)	sā'ah	sā'at	sā'at
watch (on ship)	naubah	naubat	varda
water	mā	āb	sū
water-bottle	zamzamīyah	shīshe-yi-āb	mastara
water-carrier	saqqā	saqqā	saqqā
waterskin	qirbah	mashk	sū tulumu
wave (<i>n.</i>)	mauj (<i>pl.</i> amwāj)	mauj	dalgha

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
we	nahnu	mā	biz
weak	<u>dha</u> 'if	za'if	quvvêtsiz za'if
wear (<i>trans.</i>)	labis, yalbas	pūshīdan, pūsh	geimék
weather	hawā	hawā	havā
wedge	safin	mīkh	qamā
Wednesday	Yaum al- arba'ā	Chahārsham- beh	Charshamba
week	usbū' (<i>pl.</i> asābī')	hafteh	hafta
weigh (<i>trans.</i>)	wazan, yazin	sanjīdan, sanj	tartmaq
weight	wazn	sang, wazn	aghirlıq
well (healthy)	muta'āfi	khūb	iyi
well (<i>n.</i>)	bi'r (<i>pl.</i> ābār)	chāh	qūyū
well (Persian wheel)	nā'ūr		sū dolābi
well-known	mashhūr	mashhūr	méshhūr
west	gharb	maghrib	gün batese, gharb
western	gharbi	maghribī	gharbi
wet (<i>adj.</i>)	mablūl	tar, namnāk	yashli (day), némli, islān- mish (thing)
what	mā	āncheh (= that which)	né
what ?	mā ?	cheh ?	né ?
wheat	hīntah	gandum	boghdayi
wheel	'ajalah	charkh	tékérlik
when (<i>adv.</i>)	<u>idhā</u>	chūn, waqtī keh	né-zémān ?
when ?	mata ?	kai ?	né vaqet ?
whence	min ain	az kujā	néredén
whenever	kulla mā	har gāh	hér né vaqet
where	ain	kujā	néredé (in), néréyé (to)
wherever	ainamā	har kujā	hér néredé
whether . . . or	hal (<i>or in</i>) . . . am	khāh . . . khāh	yā . . . yākhod

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
whip (<i>n.</i>),	sauṭ	tāziyāneh, shallāq	qamché
white	abyadh	safid	béyāz, āq
whither	ila ain	bi kujā	néréyé
who, which	alladhi (<i>masc.</i>), allati (<i>fem.</i>)	keh	ki
who ?	man ?	keh ?	kim ?
whole (<i>adj.</i>)	sālim	sālim, tamām	bitün, hépisi
why	limā	chirā	nichun
wide	wasī‘	pahn	génish
widow	armalah (<i>pl.</i> arāmil)	biveh-zan	dül
wife	zaujah	zan, zaujeh	qāri, harem
wild	waḥshi	biyābānī, waḥshī	yabān
willing	rāghib, muṭī‘	rāzī	günülü
win	ghalab, yagh- lib	ghālib shudan, qazanmaq shau	
wind (<i>n.</i>)	rīḥ	bād	rüzgyār
wind (<i>v.</i>)	dauwar, yu- dauwir	pīchīdan, pīch, kūk kardan, kun (a watch)	qūrmaq
window	shubbāk	daricheh, rauzan	pénjéré
windy	hawā‘i	bādī	rüzgyārli
wine	sharāb, khamr	khamr, mai	shérāb
wing	janāḥ	par, bāl	qanat, (of army) jénāḥ
winter	shitā	zamistān	qish
wire	silk ḥadīd	sīm	tél
wireless- telegraphy	telegrāf bi-lā silk	telegrāf-i-bī- sīm	télsez télé- graf
wise	ḥakīm, ‘āqil	‘āqil, dānā	‘aqli
wish (<i>v.</i>)	arād, yurīd	khāstan, khāh	istémék
with (instru- mental)	bi-	bā	-ilé (<i>suffix</i>)

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
with (accompanying)	ma'a	bā	ilē bérābér
without	bi-ghair, bi-dūn, bi-lā	bī-, bidūn-i-	-sez (<i>suffix</i>)
witness (<i>n.</i>)	shāhid (<i>pl.</i> shuhūd)	shāhid	shāhid
wolf	dhī'b (<i>pl.</i> dhiyāb)	gurg	qurt
woman	imra'ah (<i>pl.</i> nisā)	zan	khanum (<i>lady</i>), qaden (<i>common</i>)
wood (fuel)	ḥaṭab	hīzam	odun
wood (forest)	ghābah	bīsheh	ormān
woollen	min šūf	pashmīn	yunlu
word	kalimah (<i>pl.</i> kalimāt)	kalimeh	süz
work (<i>intrans.</i>)	ishtaghal, yashtaghil	kār kardan, kun	ishlémék, chalishmaq
world	dunya	dunyā	dunya
worse, worst	sharr (<i>min, than</i>), asharr	badtar, badtarīn	daha féna, én féna
worth (be)	sāwa, yusāwi	arzīdan, arz	qīmēti — (<i>its worth is</i> —)
wound (<i>v.</i>)	jarah, yajrah	zakhm kardan, kun	yaralamaq
wound (<i>n.</i>)	jurh (<i>pl.</i> jurūh)	zakhm	yara
wound-dresser	rabbāt al-jurḥa	marham guzār	timarji
wounded	majrūh	zakhm khurdeh	yaralanmish
wreck (<i>n.</i>)	markab madmūr	kashtī-yi-shikasteh	gharq
wreckage	damār	khurdahā-yi-kashtī	qerente, kharābé
write	katab, yaktub	navishtan, navīs	yazmaq
I write	aktub	mī-navīsam	yazarim
thou writest	taktub	mī-navīsī	yazarsin
he writes	yaktub	mī-navīsad	yazar

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
we write	naktub	mī-navīsīm	yazariz
you write	taktubūn	mī-navīsīd	yazarsiniz
they write	yaktubūn	mī-navīsand	yazarlar
I shall write	sa-aktub	khāham navisht	yazajaghm
thou wilt write	sa-taktub	khāhī navisht	yazajaqsın
he will write	sa-yaktub	khāhad navisht	yazajaq
we shall write	sa-naktub	khāhīm navisht	yazajaghiz
you will write	sa-taktubūn	khāhīd navisht	yazajaqsınız
they will write	sa-yaktubūn	khāhand navisht	yazajaqlar
I wrote	katabtu	navishtam	yazdim
thou wrotest	katabta	navishtī	yazdın
he wrote	katab	navisht	yazdi
she wrote	katabat	navisht	yazdi
we wrote	katabnā	navishtīm	yazdiq
you wrote	katabtum	navishtīd	yazdiniz
they wrote	katabū	navishtand	yazdilar
I do not write	lā aktub	namī-navīsam	yazmam
he does not write	lā yaktub	namī-navīsad	yazmaz
we do not write	lā naktub	namī-navīsīm	yazmaiz
you do not write	lā taktubūn	namī-navīsīd	yazmasiniz
they do not write	lā yaktubūn	namī-navī- sand	yazmazlar
do you write?	hal taktubūn?	mī-navīsīd ?	yazar-misiniz?
there is not wrong	laisa ghair ṣaḥīḥ, khaṭa	nīst ghalaṭī	yoq dir doghru déyil
yacht	yakht (<i>pl.</i> yukhūt)		yāt, sir gémisi
yard (measure)	dhīrā'	gaz	arshin, yārda

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
year	sanah (<i>pl.</i> sinīn)	sāl, saneh	séné
yellow	aşfar	zard	sare
yes	na'am	balī	évéť
yesterday	ams	dirūz	dün
yet (of time)	ba'd	hanūz,	dahā
nevertheless	ma'a kull dhā- lik	bā wujūd	ma'-mā-fih
you	antum (<i>after</i> <i>prep. or vb.,</i> -kum)	shumā	siz
young	shābb	jawān	génj
your	-kum (<i>fem.</i> -kunna)	-i-shumā, atān (<i>suffix</i>)	sizin
yours	mālkum, lakum	māl-i-shumā	sizin-ki
zone (of fire)	minṭaqah	minṭaqah	mintaqé

NUMERALS

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
1	wāhid	yak	bir
2	ithnain	dū	iki
3	thalāthah	seh	üch
4	arba'ah	chahār	dört
5	khamseh	panj	bésh
6	sittah	shish	alte
7	sab'ah	haft	yédi
8	thamāniyah	hasht	sékiz
9	tis'ah	nuh	doquz
10	'asharah	dah	on
11	iḥda 'ashar	yāzdeh	on-bir
12	ithnā 'ashar	duwāzdeh	on-iki
13	thalāthatah 'ashar	sīzdeh	on-üch
14	arba'atah 'ashar	chahārdeh	on-dört
15	khamсатаh 'ashar	pūnzdeh	on-bésh

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
16	sittatah 'ashar	shūnzdeh	on-alte
17	sab'atah 'ashar	hifdeh	on-yédi
18	thamāniyatah 'ashar	hizhdeh	on-sékiz
19	tis'atah 'ashar	nūzdeh	on-doquz
20	'ishrīn	bīst	yirmi
21	wāḥid wa- 'ishrīn	bist-ū-yak	yirmi-bir
30	thalāthīn	sī	otuz
40	arba'in	chihil	qirq
50	khamsīn	panjāh	élli
60	sittīn	shast	altmesh
70	sab'in	haftād	yétmesh
80	thamānīn	hashtād	séksén
90	tis'in	nawad	doqsan
100	mi'ah	şad	yüz
101	mi'ah wa- wāḥid	şad-ū-yak	yüz-bir
110	mi'ah wa- 'asharah	şad-ū-dah	yüz-on
111	mi'ah wa- ihda 'ashar	şad-ū-yāzdeh	yüz-on-bir
120	mi'ah wa- 'ishrīn	şad-ū-bīst	yüz-yirmi
121	mi'ah wa- wāḥid wa- 'ishrīn	şad-ū-bist-ū- yak	yüz-yirmi-bir
130	mi'ah wa- thalāthīn	şad-ū-sī	yüz-otuz
200	mi'atain	diwīst	iki-yüz
201	mi'atain wa- wāḥid	diwīst-ū-yak	iki-yüz-bir
210	mi'atain wa- 'asharah	diwīst-ū-dah	iki-yüz-on
211	mi'atain wa- ihda 'ashar	diwīst-ū-yāz- deh	iki-yüz-on-bir
220	mi'atain wa- 'ishrīn	diwīst-ū-bīst	iki-yüz-yirmi
221	mi'atain wa- wāḥid wa- 'ishrīn	diwīst-ū-bist- ū-yak	iki-yüz-yirmi- bir

<i>English.</i>	<i>Arabic.</i>	<i>Persian.</i>	<i>Turkish.</i>
230	mi'atain wa-thalāthīn	diwīst-ū-sī	iki-yüz-otuz
300	thalātha-mi'ah	sīṣad	üç-yüz
400	arba'a-mi'ah	chahār ṣad	dört-yüz
500	khamṣa-mi'ah	panṣad	bésh-yüz
600	sitta-mi'ah	shish ṣad	alte-yüz
700	sab'a-mi'ah	haḥṣad	yédi-yüz
800	thamāni-mi'ah	hashṣad	sékiz-yüz
900	tis'a-mi'ah	nuḥṣad	doquz-yüz
1,000	alf	hazār	bin
1,001	alf wa-wāḥid	hazār-ū-yak	bin-bir
1,010	alf wa-'asharah	hazār-ū-dah	bin-on
1,011	alf wa-iḥda 'ashar	hazār-ū-yāz-dah	bin-on-bir
1,020	alf wa-'ishrīn	hazār-ū-bīst	bin-yirmi
1,021	alf wa-wāḥid wa-'ishrīn	hazār-ū-bīst-ū-yak	bin-yirmi-bir
1,100	alf wa-mi'ah	hazār-ū-ṣad	bin-yüz
1,101	alf wa-mi'ah wa-wāḥid	hazār-ū-ṣad-ū-yak	bin-yüz-bir
1,110	alf wa-mi'ah wa-'asharah	hazār-ū-ṣad-ū-dah	bin-yüz-on
1,121	alf wa-mi'ah wa-iḥda wa-'ishrīn	hazār-ū-ṣad-ū-bīst-ū-yak	bin-yüz-yirmi-bir
2,000	alfain	dū hazār	iki bin
10,000	'ashratah ālāf	dah hazār	on bin
100,000	mi'at alf	ṣad hazār	yüz bin
$\frac{1}{2}$	niṣf	nīm, niṣf	yarim, (— and $\frac{1}{2}$) — buchuq
$\frac{1}{4}$	rub'	rub', chāryak	cheirék
both (of them)	kilāhuma	har dū	ikisi
first	auwal	nukhust, auwal	birinji
second	thāni	dūwum	ikinji
third	thālith	sīvum	üçhünjü

B. PHRASES

1. TIME AND PLACE

Where is ?

Arabic. Ain ?

Persian. Kujāst ?

Turkish. Nérédé dir ?

Where are they ?

Arabic. Ain hum ?

Persian. Kujāyand ? or Kujā
hastand ?

Turkish. Nérédé dirlér ?

They are here.

Arabic. Hum hunā.

Persian. Īnjāyand or Īnjā hastand.

Turkish. Burada dirlér.

He is not there.

Arabic. Laisa hunāk

Persian. Ānjā nīst.

Turkish. Orada déyil.

Where are you going ?

Arabic. Ain tarūh (pl. tarūhūn) ?

Persian. Kujā mī-ravīd ?

Turkish. Néréyé gidiyorsunuz ?

Where have you come from ?

Arabic. Min ain ji'ta (pl. ji'tum) ?

Persian. Az kujā mī-ā'id ?

Turkish. Nérédén geldiniz ?

I am going home.

Arabic. Anā rā'ih ila'l-waṭan (to
my house, ila-baiti).

Persian. Bi-khāne-yi-khud mī-
ravam.

Turkish. Évé gidiyorum.

We have come from home.

Arabic. Ji'nā min al-waṭan (from
our house, min baiti-nā).

Persian. Az khāne-yi-khud āma-
da'im.

Turkish. Évdén geldik.

Come up !

Arabic. Iṣ'ad (pl. Iṣ'adū) !

Persian. Bi-yā (= Come on !); Bar
khīz (= Rise up !).

Turkish. Yuqāreya gel !

Go down !

Arabic. Inzil (pl. Inzilū) !

Persian. Bi-rau pā'in !

Turkish. Ashāgha git !

Turn to the right (left).

Arabic. Hauwid 'ala yamīnak
(='ala shimālak).

Persian. Bi-ṭaraf-i-rāst (chap) bi-
rau.

Turkish. Sağha dön, sola dön.

Stand still there.

Arabic. Qif hādīyan (*pl.* Qifū hādīn).

Persian. Anjā bi-īst.

Turkish. Rāhat dur.

Wait for me.

Arabic. Intāzar-ni (*pl.* Intazarū-ni).

Persian. Muntazir-i-man bāsh.

Turkish. Bēni bēklé.

Come with me.

Arabic. Ta'al ma'i (*pl.* ta'alū ma'i).

Persian. Hamrāh-i man bi-yā.

Turkish. Bēnim ilé gél.

Go away.

Arabic. Ruḥ (*pl.* Rūḥū).

Persian. Bi-rau! gum shau!

Turkish. Haidé git.

In which direction?

Arabic. Fi aiy jīhah?

Persian. Bi-kudām ṭaraf?

Turkish. Hangi tarafa?

In that direction.

Arabic. Fi tilk al-jīhah.

Persian. Bi-ān ṭaraf.

Turkish. O tarafa.

How far is it?

Arabic. Esh bu'd?

Persian. Chi-qadar rāh-ast?

Turkish. Né qadar uzaq dir?

It is not far!

Arabic. Ghair ba'id!

Persian. Dūr nīst!

Turkish. Uzaq déyil!

Two hours' distance.

Arabic. Masāfat sā'atain.

Persian. Bi masāfe-yi-dū sā'at, or
Dū sā'at rāh.

Turkish. İki sā'atleq yol.

When will he come?

Arabic. Mata yajī?

Persian. Kai mī-āyad?

Turkish. Né zémān géléjék?

At what o'clock?

Arabic. Aiy sā'ah?

Persian. Chī waqt?

Turkish. Sā'at qachda?

At six o'clock.

Arabic. As-sā'ah sittah.

Persian. Bi-sā'at-i-shish.

Turkish. Sā'at alteda.

In the morning.

Arabic. Šabāhan.

Persian. Šubḥī.

Turkish. Šabāh léyin.

At noon.

Arabic. Zuhran.

Persian. Zühr.

Turkish. Ölél-yin.

In the evening.

Arabic. Masā'an.

Persian. Šab (night), Waqt-i-
ghurūb (sunset).

Turkish. Akhšamléyin.

Very early.

Arabic. Badri jiddan.

Persian. Khailī zūd.

Turkish. Pék érkén.

It is late.

Arabic. Baṭī or muta'akhkhir.

Persian. Dīr-ast.

Turkish. Géch dir.

How often ?

Arabic. Kam marrah ?
Persian. Chand martabeh ?
Turkish. Qach kéré ?

What time is it ?

Arabic. Kam as-sā'ah ?
Persian. Sā'at-i-chīst ?
Turkish. Sā'at qach dir ?

2. WEATHER

What will the weather be to-day ?

Arabic. Kaif yakūn at-ṭaqs al-yaum ?
Persian. Imrūz hawā chi-ṭaur khāhad shud ?
Turkish. Bū gün havā nasl olajaq ?

Very fine.

Arabic. At-ṭaqs ziyan.
Persian. Khaili khūb.
Turkish. Pék güzél.

Bad, cloudy, foggy weather.

Arabic. Ṭaqs mu-ziyan, mu-ghaiyam, dhabāb.
Persian. Bad, abr, mih.
Turkish. Fēna, bulutlu, siesli havā.

It is snowing on the mountains.

Arabic. Tathluj ad-dunya 'ala'l-jibāl.
Persian. Dar kūhistān barf mī-bārad.
Turkish. Dāghlara qār yagheyor.

3. THE ROAD

Where does this road go ?

Arabic. Ain yarūh hādha't-ṭariq ?
Persian. Īn rāh kujā mī-ravad ?
Turkish. Bū yol néréyé gidér ?

Does this road go to — ?

Arabic. Hal hādha't-ṭariq yarūh ila — ?
Persian. Īn rāh bi — mī-ravad ?
Turkish. Bū yol — é gidér-mi ?

Which road goes to — ?

Arabic. Aiy ṭariq yarūh ila — ?
Persian. Kudām rāh bi — mī-ravad ?
Turkish. — é hangi yoldan gitmeli ?

Which is the shortest way ?

Arabic. Aiy ṭariq aqrab ?
Persian. Kudām rāh nazdīk-tar ast ?
Turkish. Ēn qissa yol hangisi dir ?

Is it safe on the road ?

Arabic. Hal at-ṭariq ma'mūn ?
Persian. Dar Īn rāh amniyat ast ?
Turkish. Yol qorqusuzmu dur ?

How many hours is it to — ?

Arabic. Kam sā'ah ila — ?
Persian. Chand sā'at-ast bi — ?
Turkish. — é qach sā'atleq yol vār ?

Take me to —.

Arabic. Dall-ni ila — (*pl.* Dallū-ni ila —).

Persian. Marā bi — bi-bar.

Turkish. Bēni — é götür.

Where is there drinking water on this road?

Arabic. Ain mā ash-shirb fi hādha't-ṭariq ?

Persian. Dar īn rāh āb-i-khur-danī kujāst ?

Turkish. Bū yol-da içilējék sū néréde dir ?

Is it a camel road ?

Arabic. Hal aṭ-ṭariq yuwāfiq lil-jimāl ?

Persian. Rāh-i-shutur ast ?

Turkish. Dévé yolu-mi dir ?

Is it only a mule road ?

Arabic. Hal hua ṭariq lil-bighāl faqaṭ ?

Persian. Faqaṭ az barāyi qātirhā khūbast ?

Turkish. Yalinizqater yolu-mi dir ?

Is it only fit for men on foot ?

Arabic. Hal hua yuwāfiq lil-mushāt faqaṭ ?

Persian. Faqaṭ az barāyi piyā-dagān khūbast ?

Turkish. Yaliniz yāyan gidén-léré iyi-mi dir ?

4. A VILLAGE OR TOWN

What is this place called ?

Arabic. Mā ism hādha'l-makān ?

Persian. Bi injā chi mī-gūyand ?
or Īnjā chi nām dārad ?

Turkish. Bū yerin ismi né dir ?

How many houses in this village ?

Arabic. Kam bait fi hādhihi'l-qaryah ?

Persian. Dar īn deh chand khāneh dārad ?

Turkish. Bū köide qach év vār ?

Where is the post ?

Arabic. Ain al-bōstah ?

Persian. Post khāneh kujāst ?

Turkish. Postakhāné néréde dir ?

Show me the telegraph office.

Arabic. Ain bait at-telegrāf.

Persian. Teleghrāf-khāne-rā bi-man nishān bi-dihīd.

Turkish. Bana téléghraf-khāné-yi göstér.

Is there a telephone office here ?

Arabic. Hal yūjad maḥall-talfūn hunā ?

Persian. Īnjā telefūn dārad ?

Turkish. Burda téléfon mérkézi vār mi ?

Where is the inn ?

Arabic. Ain al-khānah ?

Persian. Khān (kārwānsarāi, chāpārkhāneh) kujāst ?

Turkish. Khān néréde dir ?

We are going to stay the night here.

Arabic. Nabīt hunā.

Persian. Imshab injā mī-mānīm.

Turkish. Biz géjé burda dura-jayiz.

5. AT A RIVER

What is this river called ?*Arabic.* Mā ism hādha'n-nahr ?*Persian.* Īn rūd-khāneh chi nām dārad ?*Turkish.* Bū irmaghen ismi né dir ?**How deep is the river ?***Arabic.* Esh 'umq hādha'n-nahr ?*Persian.* Rūd-khāneh chi-qadar 'amiq-ast ?*Turkish.* Sū né qadar dérin dir ?**Where is the nearest bridge ?***Arabic.* Ain al-jisr al-aqrab ?*Persian.* Kudām pul nazdiktar-ast ?*Turkish.* Ēn yaqen köprü néréde dir ?**Take me there.***Arabic.* Khudh-ni ila hunāk.*Persian.* Marā ānjā bi-bar.*Turkish.* Béni oraya götür.**Show me the nearest ferry.***Arabic.* Ain al-ma'bar al-aqrab.*Persian.* Guzār-gāhī ki nazdiktar bāshad bi-man nishān bi-dih.*Turkish.* Bana én yaqen géchid-yérini göstér.**Get hold of a boat (canoe).***Arabic.* Jīb-li balam.*Persian.* Kashtī paidā kun.*Turkish.* Bir qayıq bul.**Is there a raft here ?***Arabic.* Hal yūjad kalak ?*Persian.* Kalak injā paidā mī-shavad ?*Turkish.* Burda sal vār mi ?**Is the current strong ?***Arabic.* Hal jarayān al-mā sari' ?*Persian.* Āb tund mī-ravad ?*Turkish.* Aqinté choq vār mi ?**Where is the easiest place to swim across ?***Arabic.* Aiy makān al-as-hal ḥatta nasbah wa-na'bur ?*Persian.* Kujā mī-tawānam bi-āsānī bi-shināvari bi-guzaram ?*Turkish.* Ö bir tarafa yüzérék gitmek ichin én qolai yér néréde dir ?**Take us across.***Arabic.* 'Abbīr-nā (pl. 'Abbirū-nā).*Persian.* Mārā bi-ān ṭaraf bi-barīd.*Turkish.* Bizi qarshiyé géchir.**You will be rewarded.***Arabic.* Nujāzik (pl. Nujāzīkum).*Persian.* In'ām khāhīm dād.*Turkish.* Bakhshish véréjéyiz.**You must go in front of me.***Arabic.* Lāzim tamshi quddāmi.*Persian.* Bāyad jilau-i-man bi-ravid.*Turkish.* İleri gitmélisin.

What lies on the other side ?

- Arabic.* Mā 'ala'l-jānib al-ākhar ?
Persian. Chi jā (place, or) shahr
 (city) dar ān taraf ast ?
Turkish. Uté tarafda né vār ?

Is it far to the mouth ?

- Arabic.* Hal ba'id ila maṣabb (or
 fam) an-nahr ?
Persian. Az injā tā ānjā ki dar
 daryā mī-rizad dūr-ast ?
Turkish. Chai aghzi uzaq-mi dir ?

6. A MOUNTAIN OR HILL

What is this big mountain called ?

- Arabic.* Mā ism hādha'l-jabal al-
 kabīr ?
Persian. Īn kūh-i-buzurg chi mī-
 gūyand ?
Turkish. Bū büyük dāghen ismi
 né dir ?

How high is the mountain ?

- Arabic.* Mā 'aluw al-jabal ?
Persian. Īn kūh chi-qadar buland
 ast ?
Turkish. Dāgh né qadar yüksék
 dir ?

What is the easiest way up the hill ?

- Arabic.* Aiy tariq al-as-hal naṣ'ad
 at-tall ?
Persian. Bi-kudām rāh bi-āsānī
 mī-tuwān bi-qulle-yi-ān
 kūh rasīd ?
Turkish. Yuqāriyé én qolaī yol
 hangisi dir ?

Is it very steep ?

- Arabic.* Hal hua' kathīr muta-
 haddir ?
Persian. Khailī sar-ā-bālāst ?
Turkish. Pék dik mi dir ?

Is it dangerous ?

- Arabic.* Hal hua mukhtir ?
Persian. Khaṭar-nāk ast ?
Turkish. Qorqulu mu dir ?

Can one get up on horseback ?

- Arabic.* Hal yumkin naṣ'ad rāki
 bīn ?
Persian. Suwār mī-shavad raft ?
Turkish. At-ilé chikilé bilirmi ?

Can the guns be got up ?

- Arabic.* Hal yumkin taṣ'id al-
 madāfi' ?
Persian. Tūp-hā-rā mī-shavad
 ānjā burd ?
Turkish. Toplar yuqāriyé chikar-
 ela bilirmi ?

Yes, but they cannot be got down on the other side.

- Arabic.* Na'am, walākin lā yum-
 kin tanzīl-hum min al-
 jānib al-ākhar.
Persian. Balī, ammā az ān taraf
 namī - shavad pā'in
 āvardan.
Turkish. Évét, ammā uté tarafda
 indiriléméz.

Are there several ways down ?

Arabic. Ṭuruq kathīrah lin-nuzūl ?

Persian. Āyā, chand rāh bi-pā'in dārad ?

Turkish. Ashāgheya bir qach yol vār mi ?

Are there any robbers about ?

Arabic. Hal tūjad ḥarāmīyah ?

Persian. Dar in jā-hā duzd dārad ?

Turkish. Etrafda khersez vār mi ?

7. A FOREST

How big is the forest ?

Arabic. Esh kubr al-ghāb ?

Persian. Īn bīsheh (or jangal) chiqadar buzurg-ast ?

Turkish. Ormān né qadar büyük dir ?

Can mounted troops get through the forest ?

Arabic. Hal yumkin al-khaiyālah ya'burūn al-ghāb ?

Persian. Qushūn-i-suwār mī-tawānad az bīsheh biguzarad ?

Turkish. Ormāndan süvāri géché-bilirmi ?

How wide is it ?

Arabic. Esh 'ardh-hu ?

Persian. Pahnāsh chiqadar buzurg-ast ?

Turkish. Né qadar génish dir ?

Yes, but I don't think one can get through with the guns.

Arabic. Na'am, walākin mā aẓunn mumkin lil-madāfi'.

Persian. Balī, ammā gumān nami-kunam ki tūp bi-ravad.

Turkish. Évét, faqat zann étmem ki top ilé géchilébilir.

Where does the road go through the forest ?

Arabic. Fi aiy jihah min al-ghāb at-ṭariq ?

Persian. Īn rāh ki az jangal mī-guzarad kujā mī-ravad ?

Turkish. Bū ormāndan géché yol néréyé gidér ?

8. RAILWAY STATION

Is it far to the railway ?

Arabic. Hal ba'id ila's-sikkat al-hadid ?

Persian. Ayā, bi-rāh-i-āhan dūr-ast ?

Turkish. Demir yoluna uzaq-mi dir ?

Only half an hour.

Arabic. Faqaṭ niṣf as-sā'ah.

Persian. Nīm sā'at rāh-ast ū bas.

Turkish. Salt yarım sā'at dir.

When does the train arrive ?

Arabic. Mata yaṣil al-qitār ?

Persian. Qitār kai mī-rasad ?

Turkish. Trén né zémān gélir ?

When does the train go to — ?

Arabic. Mata yusāfir al-qitār ila — ?

Persian. Qitār bi — kai mī-ravad ?

Turkish. Trén — é né zémān gidér ?

Where is the next train coming from ?

Arabic. Min ain yajī al-qitār ath-thāni ?

Persian. Qitār az kujā mī-āyad ?

Turkish. Ö bir trén nérédén gélir ?

Stop the train.

Arabic. Waqqif al-qitār.

Persian. Qitār-rā istādeh kun.

Turkish. Tréni durdur.

Get me a porter.

Arabic. Jīb-li hammāl.

Persian. Hammālī paidā kun.

Turkish. Bana bir hammāl gétir.

What is the fare ?

Arabic. Kam al-ujrah ?

Persian. Chand bāyad bi-diham ?

Turkish. Yol parase né qadar dir ?

Where is my luggage ?

Arabic. Ain asbābi (or 'afshi) ?

Persian. Asbāb-i-man kujāst ?

Turkish. Êshyām nérédé dir ?

9. INQUIRIES ABOUT TROOPS

Have you seen our troops ?

Arabic. Hal ra'aita (pl. ra'aitum) 'asākir-nā ?

Persian. Qushūn-i-mārā dida-id ?

Turkish. 'Askérimizi gördünüz-mü ?

Do you know where the troops are ?

Arabic. Hal tadri (pl. tadrūn) ain al-'askar ?

Persian. Mī-dānīd ki qushūn ku-jāst ?

Turkish. 'Askérin nérédé oldunu bilirmisiniz ?

Yes, I saw them by the wood.

Arabic. Na'am, ra'aituhum qarīb al-ghāb.

Persian. Balī, ān-hā-rā dam-i-bisheh dīdam.

Turkish. Évét, ormānen yanında gördüm.

What sort of troops and how many are they ?

Arabic. Aiy nau' min al-'asākir wa-kam 'adad-hum ?

Persian. Chi jūr qushūn, ū chand nafar ?

Turkish. Né durlu 'askér dir, vé 'addé né qadar ?

Five thousand, with cavalry and guns.

Arabic. Khamsat ālāf ma'a khay-yālah wa-madāfi'.

Persian. Panj hazār, bā suwār ū tūp.

Turkish. Besh bin vār, süvāri ilē toplar.

Since when are they there ?

Arabic. Min aiy mata kănū hunāk ?

Persian. Az chi waqt ānjā būdeh-and ?

Turkish. Né vaqet-dan-bēri orada dirlér ?

In which direction have they marched ?

Arabic. Ila aiy jihah mashū ?

Persian. Bi-kudām taraf rawāneh shudeh-and ?

Turkish. Hangi jihétē harékét étdilér ?

Where is an officer ?

Arabic. Ain adh-dhābiṭ ?

Persian. Sāhib-manşabi kujāst ?

Turkish. Zābit néréde dir ?

Take me to the Colonel.

Arabic. Waddīni ila'l-mīrālai.

Persian. Marā pish-i-sartīp bi-bar.

Turkish. Bēni mīrālāya götür.

I have a letter from our General.

Arabic. 'Indi maktūb min mu-shīr-nā.

Persian. Kāghazī dāram az sardār.

Turkish. Qomāndānimizdan bēnda bir méktūb vār.

10. FOOD AND DRINK

I am hungry, I wish to eat.

Arabic. Anā jū'ān, arīd shai a'kul.

Persian. Gurasneh-am, mī-khāham bi-khūram.

Turkish. Qarnem ach, yéyéjék bir shei istérim.

I am thirsty, I wish to drink.

Arabic. Anā 'atshān arīd shai ashrah.

Persian. Tishneh-am, mī-khāham bi-nūsham.

Turkish. Sūsuzem, sū ichmék istérim.

Where can I get food ?

Arabic. Ain aḥṣṣil at-ṭa'am ?

Persian. Az kujā mī-tawānam khurdānī paidā kunam ?

Turkish. Néréde yéyéjék bula bilirim ?

Innkeeper, we want a meal.

Arabic. Yā ṣāhib al-bait, nurīd akl.

Persian. Mī-khāhīm chizī bi-khūrim.

Turkish. Khānji, yémék istériz.

Give me something to drink.

Arabic. A'ṭini farid shai ashrah.
Persian. Chīzī nūshīdanī bi-man
 bi-dihid.
Turkish. Bana içejék bir shei vér.

Have you enough for all my men ?

Arabic. Hal 'indak shai yakfi
 kull rijāli ?
Persian. Āyā, az barāyi hame-yi-
 ādamhā-yi-man kāfī dā-
 rīd ?
Turkish. Néfêrlérimin hépisiné yé-
 téjék qadar vār-mi ?

Is the water good here ?

Arabic. Hal al-mā hunā jaiyid ?
Persian. Ab dar injā khūb-ast ?
Turkish. Buranen sūyu iyi mi
 dir ?

Have you fresh eggs ?

Arabic. Hal 'indkum baidh ?
Persian. Tukhm-i-murgh-i-tāzeh
 dārīd ?
Turkish. Tāzé yemurtanez vār
 mi ?

Bring bread and cheese.

Arabic. Jīb-lanā khubz wa-jubn.
Persian. Nān ū panīr bi-yār.
Turkish. Ékmék ilé pénir gétir.

Bring us coffee with milk.

Arabic. Jīb-lanā qahwah bi-ḥalīb.
Persian. Qahweh bā shīr-i-gāu bi-
 yār.
Turkish. Bizé sütlü qahvé gétir.

Hurry up, we haven't much time.

Arabic. Ista'jil, mā 'indnā waqt.
Persian. Zūd bāsh, khailī waqt na-
 dārīm.
Turkish. Chabuk ol, choq vage-
 temez yoq.

I am going to pay for it.

Arabic. Anā adfa' thamanha.
Persian. Pūl-i-ān-rā mī-khāham
 bi-dīham.
Turkish. Parasene veréjéyim.

Bring us the bill.

Arabic. Jīb sūrat al-ḥisāb.
Persian. Ḥisāb-rā bi-yār.
Turkish. Bizé hisāb gétir.

How much do we owe ?

Arabic. Kam naḥnu madyūnīn ?
Persian. Chand bāyad bi-dihim ?
Turkish. Borjumuz né qadar ?

How much does this cost ?

Arabic. Kam thaman hādha ?
Persian. Īn chand mī-arzād ?
Turkish. Bunun fi'ate né dir ?

11. BILLETS, LODGING AND STABLING

I want quarters for 50 men.

Arabic. Arīd maḥall yasi' khamṣīn nafar.

Persian. Az barāyi panjāh ādam manzil mī-khāham.

Turkish. Elli nêfêr ichun yêr istêrim.

Give me better quarters.

Arabic. A'ṭini maḥall aḥsan.

Persian. Manzilî bihtar az in bi-man bi-dih.

Turkish. Bana bündan iyi bir yêr vêr.

Have you found me quarters yet ?

Arabic. Hal wajadta-li maḥall ?

Persian. Manzilî az barāyi man hanūz paidā kardeh-id ?

Turkish. Bizim ichun yêr daha buldun mu ?

Where is the owner of the house ?

Arabic. Ain ṣāḥib al-bait ?

Persian. Ṣāḥib-i-inkhāneh kujāst ?

Turkish. Ev sāhibi nêrêdê ?

Light the fire, please.

Arabic. Arjūk ish'al an-nār.

Persian. Luṭfan ātash-rā biafrūz.

Turkish. Kêrêm êt, atêshi yaq.

I want stabling for 16 horses.

Arabic. Arīd akhūr li-sittatah-'ashar ḥiṣān.

Persian. Az barāyi shūnzdeh asp ṭawīleh mī-khāham.

Turkish. On alte ât ichun akhur istêrim.

Thanks, we want nothing more.

Arabic. Ashkurak, hādha kull mā aradnā.

Persian. Luṭf-i-shumā ziyād, digar chizî lâzim nadārīm.

Turkish. Têshêkkür edêrim, bashqa bir shei istémeyiz.

Tell all people not to be afraid.

Arabic. Qul li-jamī' an-nās lâ yakhāfū.

Persian. Bi-mardum bi-gū na-tarsand.

Turkish. Bitün êhâliyê söilê qorq-mazsenlar.

Where is there some clean water ?

Arabic. Ain najīd mā ṣāfi ?

Persian. Âb-i-pāk kujāst ?

Turkish. Têميز sũ nêrêdê bulunur ?

Clear those houses ; we are going to quarter our men in them.

Arabic. Farrigh tilk al-buyūt ; narīd nusakkin rijāl-nā fihā.

Persian. Ân khāne-hā-rā khālī kun : mī-khāhīm ādam-hā-yi khud-rā ānjā manzil bi-dihim.

Turkish. Shu évlêrdén êhâliyi chiqār, nêfêratemeze orada oturtajaghez.

Have you small-pox in this village ?

Arabic. Hal jidri fi hādhihi'l-qaryah ?

Persian. Dar in deh ābileh dā-rad ?

Turkish. Bũ köidê chichék khastaleghe vār mi ?

Tell me the house where there are sick men.

Arabic. Akhbirni ain al-ḥōsh al-ladhi fihi mardha.

Persian. Marā ān khāne-rā nishān deh ki-mardum-i-nā-khush dar ānjā ha-stand.

Turkish. Ichindé khasta bulunan évi bana göstér.

Is it feverish here ?

Arabic. Hal hādha'l-makān fihi ḥumma ?

Persian. Īnjā tab dārad ?

Turkish. Burase sitmale mi dir ?

Is it healthy here ?

Arabic. Hal hādha'l-makān mu-wāfiq liṣ-ṣiḥḥah ?

Persian. Īnjā sālim-ast ?

Turkish. Buranen havāse iyi-mi dir ?

12. STRANGERS OR SUSPECTS

Stop ! or I shall shoot.

Arabic. Qif ! wa-illā uqauwisak.

Persian. Bi-ist, wa-illā tīr mī-andāzam.

Turkish. Dur ! yoqsa atësh idérim.

Don't move from the spot.

Arabic. Lā tataḥarrak min makānik.

Persian. Az ānjā ki hastī ḥarakat na-kun.

Turkish. Oradan qimildanma.

Stand a little further off.

Arabic. Qif ab'ad.

Persian. Qadrī dūrtar bi-ist.

Turkish. Bir az daha uzaqda dur.

Come closer.

Arabic. Taqarrab (pl. Taqarrabū).

Persian. Nazdiktar biyā.

Turkish. Daha yaqen gél.

Turn round.

Arabic. Dauwir (pl. Dauwirū).

Persian. Bar gard.

Turkish. Dön.

Hands up !

Arabic. Arfa' yadaik !

Persian. Dast bar dārid !

Turkish. Éllérini qaldır !

Put down your arms.

Arabic. Irmī asliḥatak (pl. Irmū asliḥat-kum).

Persian. Asliḥah rū-yi zamīn bi-guzār.

Turkish. Silāhene yéré brāq.

Surrender.

Arabic. Sallim nafsak.

Persian. Khud-rā taslīm kun.

Turkish. Téslīm ol.

You may not talk to any one.

Arabic. Lā tatakallam (pl. tata-kallamū) ma'a aḥad.

Persian. Na-bāyad bā kasī ḥarf bi-zanī.

Turkish. Hiç bir kimséilé qonush-mayajaqsın.

You are trying to deceive me.*Arabic.* Anta tarīd an takhda'-ni.*Persian.* Mī-khāhid marā gūl bi-zanīd.*Turkish.* Bēni aldatmagha chālishyorsun.**You are lying !***Arabic.* Anta kadh^hdhāb !*Persian.* Durūgh mī-gū'i !*Turkish.* Yalān söiléyorsun !**You are a spy !***Arabic.* Anta jāsūs !*Persian.* Jāsūsī !*Turkish.* Sēn jāsūs sin !**You are under arrest.***Arabic.* Anta tahta tauqīf.*Persian.* Zīr-i-tauqīf hastī.*Turkish.* Tahte tévqīfdé sin.**Take off your belt.***Arabic.* Fuk hīzāmak.*Persian.* Kamarband - i - khud - rā bar dārīd.*Turkish.* Qayeshene chiqar.**If you behave you will be safe.***Arabic.* Hassin sulūkak takun fī amān.*Persian.* Agar bi ṭaur-i-ma'qūl raftār kunī, zararī bi-tū na-khāhad rasīd.*Turkish.* Eýer éyi davranarsan qorqusuz ola bilirsin.

13. WOUNDS OR SICKNESS

Do you feel better ?*Arabic.* Hal anta aḥsan ?*Persian.* Aḥwāl-i-shumā bihtarast ?*Turkish.* Kéndini daha iyi güriyormisin ?**Do you feel worse ?***Arabic.* Hal anta adh'af ?*Persian.* Aḥwāl-i-shumā badtarast ?*Turkish.* Kéndini daha fēna güriyormisin ?**What is the matter ?***Arabic.* Mā al-khabar ?*Persian.* Chi (zarar) dārīd ?*Turkish.* Né vār ?**I am wounded.***Arabic.* Anā injaraht.*Persian.* Zakhm khurdeh-am.*Turkish.* Yarale-im.**Where are you wounded ?***Arabic.* Ain injaraht ?*Persian.* Zakhm-at kujāst ?*Turkish.* Nérédé yaralesin ?**In the knee, the foot.***Arabic.* Fir-rukbah, fil-qadam.*Persian.* Dar zānū, dar pā.*Turkish.* Dizimden, ayakhemdan.**Keep quiet.***Arabic.* Uskut (don't talk), lā tataharrah (don't move).*Persian.* Āsūdeh bāsh.*Turkish.* Qimildanma.

You mustn't speak.

- Arabic.* Lā tatakallam.
Persian. Na-bāyad harf bi-zanīd.
Turkish. Laqerde étmémélisin.

Sit down, lie down.

- Arabic.* Uq'ud (*pl.* Uq'udū), idh-
 taji' (*pl.* idhtaji'ū).
Persian. Bi-nishīn, bi-khāb.
Turkish. Otur, yat.

Undress yourself.

- Arabic.* Ikhla' thiyābak.
Persian. Rakht-i-khud-rā bi-kan
 or lukht shau.
Turkish. Soyun.

Give me water.

- Arabic.* A'tini mā.
Persian. Ab bi-dih.
Turkish. Bana sū vér.

Here is water and brandy.

- Arabic.* Hādha mā wa-kunyāk.
Persian. Īnak, āb ū konyāk.
Turkish. Ishtë sana sū ilé konyāk.

Give me a bandage.

- Arabic.* A'tini rabātah.
Persian. 'Iṣābe-yi bi-man bi-dih.
Turkish. Bana bir yara sarghese
 vér.

Help me with the bandaging.

- Arabic.* Sā'id-ni'ala hādha'r-rabṭ.
Persian. Dar 'iṣābeh bastan marā
 yāwarī kun.
Turkish. Bana sargheye sarmaqda
 yardem ét.

Go to the Doctor and tell him to come at once.

- Arabic.* Ruḥ ila't-tabīb wa-qul
 lahu ya'ti hālan.
Persian. Ḥakīm-rā bi-gū zūd bi-
 yāyad.
Turkish. Hekime git söilé ki
 shimdi buraya gélisin.

Take this medicine.

- Arabic.* Ishrab hādha'd-dawā.
Persian. Īn dārū-rā bi-khur.
Turkish. Shu 'ilāje ich.

Take this man to hospital.

- Arabic.* Khudh (*pl.* Khudhū)
 hādha'r-rajul ila'l-mus-
 tashfa.
Persian. Īn mard-rā bi marīz-
 khāneh bi-bar.
Turkish. Bū néféri khasta-khānéyé
 götür.

14. GENERAL PHRASES

Good night, madam.

- Arabic.* Masā'al-khair yā saiyidati.
Persian. Shab-i-shumā bi-khair,
 khānam.
Turkish. Hanem gējéniz khair
 olsun effēndi.

Good morning, madam.

- Arabic.* Ṣabāḥ al-khair yā saiyi-
 dati.
Persian. Ṣubḥ-i-shumā bi-khair.
Turkish. Ṣabāheniz khair olsun,
 hanem effēndi.

Good morning, Sir.*Arabic.* Ṣabāḥ al-khair yā-saiyidi.*Persian.* Ṣubḥ-i-shumā bi-khair.*Turkish.* Sabāheniz khair olsun, effēdim.**Please come in ; sit down !***Arabic.* Tafadhdhal udkhul ; uq'ud !*Persian.* Bi-farmā'id ; bi-nishīnīd !*Turkish.* Buyurun ; oturun !**How are you ?***Arabic.* Kaifa ḥālak (pl. ḥāla-kum) ?*Persian.* Aḥwāl-i-shumā chi ṭaurast ?*Turkish.* Nasl siniz.**God grant it !***Arabic.* In shā Allāh !*Persian.* Khudā kunād ! In sha'llāh !*Turkish.* İnshallāh !**I am sorry.***Arabic.* Anā muta'assif.*Persian.* Afsūs mi-khuram.*Turkish.* Yazıq.**It is true.***Arabic.* Ṣaḥīḥ.*Persian.* Rāst ast.*Turkish.* Doghru dir.**What is the news ?***Arabic.* Mā'l-akhbār ?*Persian.* Chi khabar-ast ?*Turkish.* Né khaber vār ?**What are your wishes ?***Arabic.* Mādha turīd (pl. turīdūn) ?*Persian.* Chi mī-khāhīd ?*Turkish.* Né istérsiniz ?**Do you know English ?***Arabic.* Hal ta'rif (pl. ta'rifūn) inglisi ?*Persian.* Inglīsī-rā mī-dānīd ?*Turkish.* İngilizé bilirmisiniz ?**Thank God ! I am well !***Arabic.* Al-ḥamdu lillāh, anā bi-khair !*Persian.* Al-ḥamdu lillāh, aḥwāl-am khūb-ast !*Turkish.* Al-hamdu lillāh, iyi yim !**Speak slowly.***Arabic.* Takallam yawāsh (or bi-ta'anni).*Persian.* Yawāsh harf zan.*Turkish.* Yavāsh söilé.**There is a fire.***Arabic.* 'Inda-nā nār.*Persian.* Ātash dārad.*Turkish.* Atésh vār burda.**You are welcome.***Arabic.* Marḥaban bika (pl. bikum).*Persian.* Khush āmadīd.*Turkish.* Khosh géldiniz ! Safā géldiniz !**Impossible.***Arabic.* Ghair mumkin.*Persian.* Muḥāl, ghair-i-mumkin.*Turkish.* Olmaz.**Please.***Arabic.* Tafadhdhal.*Persian.* Luṭfan.*Turkish.* Kérém ét.

Thank you.

Arabic. Ashkurak or Ahsant.
Persian. Iltifāt-i-shumā ziyād.
Turkish. Teshékkür ederim.

Do you understand ?

Arabic. Hal 'arift (*pl.* 'ariftum)
 or Hal tafham (*pl.* taf-
 hamūn) ?
Persian. Ayā, fahmīdī ?
Turkish. Anladen mi ?

I don't understand.

Arabic. Anā mā fahimtu.
Persian. Namī-fahmam.
Turkish. Anlamam.

All right.

Arabic. Taiyib.
Persian. Khāilī khūb.
Turkish. Pék 'ala, pék iyi.

There is no news.

Arabic. Mā fi khabar.
Persian. Khabarī nīst.
Turkish. Khāber yoq.

How do you know ?

Arabic. Kaif ta'rif ?
Persian. Az kujā mī-dānīd ?
Turkish. Nasl bilirsiniz ?

It is false.

Arabic. Laisa ṣaḥīḥ or kidhb.
Persian. Durūgh-ast.
Turkish. Yalān dir.

I am glad.

Arabic. Al-ḥamdu lillāh.
Persian. Khush-am mī-yāyad.
Turkish. Mémnūn um.

Possible.

Arabic. Mumkin.
Persian. Mumkin.
Turkish. Mumkin, olabilir.

Rain threatens.

Arabic. Ad-dunya maṭṭārah.
Persian. Dārad bārān bi-bārad.
Turkish. Yaghmur yaghajaq gibi.

It is moonlight.

Arabic. Ad-dunya muqmirah or
 nūr qamar.
Persian. Mahtāb-ast.
Turkish. Mahitāb havāse vār.

How old are you ?

Arabic. Kam sanah 'umrak ?
Persian. Chand sālagī dārid ?
Turkish. Qach yashenda sin ?

I must go.

Arabic. Lāzim arūḥ.
Persian. Bāyad bi-rawam.
Turkish. Gitmeliyim.

Is he at home ?

Arabic. Hal hua fil-bait ?
Persian. Dar khāne-ast ?
Turkish. Évdé mi dir ?

Who is it ?

Arabic. Man hua ?
Persian. Kīst ?
Turkish. Kim dir ?

Let him enter.

Arabic. Da'-hu yadkhul.
Persian. Biyāyad.
Turkish. Buyursun.

Does the water boil ?

Arabic. Hal al-mā fār (or ghalā) ?
Persian. Āb jūsh mī-khurad ?
Turkish. Sū qainayr mu ?

Good-bye.*Arabic.* Auda'nākum.*Persian.* Khudā ḥāfiz.*Turkish.* Allāha ismarladeq.**Au revoir.***Arabic.* Nashūf wajhak 'ala khair.*Persian.* Dūbāreh shumā-rā
khāhīm did.*Turkish.* Yağında görüşürüz in-
shallāh.**Pleasant journey.***Arabic.* Safar maimūn.*Persian.* Fi amān illāh.*Turkish.* Sélamétlé, oghurlar-ola.**Of course.***Arabic.* Tab'an.*Persian.* Ālbatteh.*Turkish.* Élbétté.**Please tell me.***Arabic.* Tafadh^hdh^hal qul-li.*Persian.* Luṭfan marā bi-gū.*Turkish.* Rija idérim bana soilé.**What did you say ?***Arabic.* Mā-d^ha qulta ?*Persian.* Chi guftid ?*Turkish.* Né dédiniz ?**What did he say ?***Arabic.* Mā-d^ha qāl ?*Persian.* Chi guft ?*Turkish.* Né dédi ?**Excuse me.***Arabic.* Al-'afwū or sāmih-ni.*Persian.* Bi-bakhshid.*Turkish.* 'Afv édérsiniz.**You are mistaken.***Arabic.* Anta ghaṭān.*Persian.* Khaṭā kardid.*Turkish.* Yanleshiniz vār.**No matter.***Arabic.* Lā bas.*Persian.* 'Aibi na-dārad.*Turkish.* Zarar yoq.

APPENDIX

NOTE ON THE SYSTEM OF TRANSLITERATION OF PROPER NAMES

I

ARABIC

I. Consonants.

1. ' (Hamzah) = ' except at the beginning or end of a word, and in common terms such as *Bir* and *Ras*, when it is omitted in transliteration ; e. g. *Ahmed*, *Hā'il*.

ب = b	ذ = dh	ط = t	ل = l
ت = t	ر = r	ظ = z (or dh)	م = m
ث = th	ز = z	ع = ' (Hamzah)	ن = n
ج = j	س = s	غ = gh	و = w
ح = h	ش = sh	ف = f	ه = h
خ = kh	ص = s	ق = q	ي = y
د = d	ض = dh	ك = k	

In the case of a few place-names, taken from European itineraries, *g* has been retained when the original Arabic consonant (ق, غ or ج) is uncertain.

II. Vowels.

2. (i) َ (Fet-hah) = *a* or *e* according to pronunciation, e. g. *Jebel*, *Qal'ah*.

(ii) ِ (medial Fet-hah + Alif) = *ā*, e. g. *Jābir*, *Hikmān*.

(iii) ِى (Fet-hah + final Ye, rare in place-names) = *a*, e. g. *A'ma*.

3. (i) َ (Kesrah) = *i*, more rarely *e*, e. g. *Nisāb*, *Hejaz* (for *Hijāz*).

(ii) ِ (medial Kesrah + Ye) = *i*, e. g. *Lith*, *Qasim*.

4. (i) ُ (Dhammah) = *u* or *o* according to pronunciation, e. g. *Khubb*, *Hodeidah*.

(ii) ُو (medial Dhammah + Wau) = *ū* or *ō* according to pronunciation, e. g. *Tebūk*, *Khōr*.

III. Diphthongs.

5. َو (Fet-hah + Wau) = *au*, e. g. *Jauf*.

6. َوَو (Fet-hah + double Wau) = *aww*, e. g. *Fawwārah*.

7. َي (Fet-hah + Ye) = *ei* or *ai* according to pronunciation, which, it should be noted, varies in different districts, the guttural consonants, however, tending to retain after them the more open sound, e. g. *Sheikh*, '*Ain*.

8. َيَو (Fet-hah + double Ye) = *eyy* or *ayy* according to pronunciation, e. g. *Seyyid*, '*Ayyād*.

IV. Remarks.

9. Teshdid (ّ) is represented by doubling the English consonant over which it stands, e. g. *Mohammed*, *Jinn*.

10. The Definite Article (ال) is spelled as pronounced *el* (more rarely *al* or *ul*), the usual assimilation of the *l* being made before *dentals*, *sibilants*, and *l*, *r*, *n*; e. g. *Sūq esh-Shuyūkh*, *Sheikh ul-Islām*.

11. A Hyphen is used only in the following cases :—

(1) After the Definite Article.

(2) Between the following consonants when they belong to different syllables, s-h, d-h, t-h, k-h, z-h, to prevent confusion with the single consonants sh, dh, th, kh, zh; e. g. *Mis-hāl*, *Bat-ha*.

12. Final *ī* (the feminine ending) = *ah* or more rarely *a* (at before a vowel), e. g. *Qal'ah*, *Basra*, *Khīrbat el-Quweirah*.

13. Final *īyah* = *iyah* (*iyat* before a vowel), e. g. *Jerāhiyah*.

Final *īyah* = *iyah* (*iyat* before a vowel), e. g. *Hayyāniyah*.

V. Compound Words.

14. The two components in a compound name (in the absence of *al* between them) are written with a capital and without a hyphen connecting them, e. g. *Medā'in Sālīh*, *Khamīs Musheit*.

15. Words which have become Europeanised are left in that form, e. g. *Akaba* (for '*Aqabah*'), *Mecca* (for *Makkah*), *Medina* (for *Medīnah*); for a list of conventional spelling retained, see below, p. 473.

16. The Arabic article *al* prefixed to names has been omitted in English, except in cases where its retention is authorized by general usage.

17. The word *ibn* occurring in the name of a person is written without a hyphen before or after it, e. g. *Mohammed ibn Sa'ūd*.

II

PERSIAN

I. Consonants.

18. The same as for Arabic, plus :

پ = p	ذ = z	ض = z	و = v or w
ث = s	ژ = zh	گ = g	
چ = ch			

II. Vowels.

19. The same as for Arabic.

III. *Diphthongs.*

20. The same as for Arabic.

IV. *Remarks.*

21. 'Izāfat' is transliterated by *i* with a hyphen before and after, e.g. *Kōh-i-Siyāh*.

22. Final *he* (ه) is transliterated only when pronounced, e.g. *shāh*, *deh*.

III

TURKISH

23. The same as for Arabic, plus:

Modified vowels *ö*, *ü*.

24. A few Turkish words where two vowels come together, as in *Bair*, are written with a Hamza, e.g. *Ba'ir*.

25. In Turkish a half audible *y* sound is introduced between *k* and following vowel.

IV

(a) CONSONANTS

LETTER				NAME	TRANSLITERATION	
Final		Medial	Initial		Arabic	Persian, Turkish
ا	ا			alif	a	a
ب	ب	ب	ب	be	b	b
پ	پ	پ	پ	pe		p
ت	ت	ت	ت	te	t	t
ث	ث	ث	ث	the	th	s

(a) CONSONANTS (*continued*)

LETTER				NAME	TRANSLITERATION	
Final		Medial	Initial		Arabic	Persian, Turkish
ج	ح	ح	ح	jīm	j	j
چ	چ	چ	چ	che		ch
ه	ه	ه	ه	ḥe	h	h
خ	خ	خ	خ	khe	kh	kh
د	د	د	د	dāl	d	d
ذ	ذ	ذ	ذ	dhāl	dh	z
ر	ر	ر	ر	re	r	r
ز	ز	ز	ز	ze	z	z
ژ	ژ	ژ	ژ	zhe		zh
س	س	س	س	sīn	s	s
ش	ش	ش	ش	shīn	sh	sh
ص	ص	ص	ص	ṣād	s	s
ض	ض	ض	ض	dhād	dh	z
ط	ط	ط	ط	ṭā	t	t
ظ	ظ	ظ	ظ	dha	z	z
ع	ع	ع	ع	‘ain	‘	‘
غ	غ	غ	غ	ghain	gh	gh
ف	ف	ف	ف	fe	f	f
ق	ق	ق	ق	qāf	q	q
ك	ك	ك	ك	kef	k	k
گ	گ	گ	گ	gāf		g
ل	ل	ل	ل	lām	l	l
م	م	م	م	mīm	m	m
ن	ن	ن	ن	nūn	n	n
و	و	و	و	wau	w	v or w
ه	ه	ه	ه	he	h	h
ي	ي	ي	ي	ye	y	y

(b) VOWELS AND DIPHTHONGS

ARABIC, PERSIAN, AND TURKISH

Short.

ـَ (Fet-hah) = a *or* e

ـِ (Kesrah) = i

ـُ (Dhammah) = u *or* o

Long.

اـَ (Fet-hah + Alif) = ā

ايـِ (Kesrah + Ye) = ī

اوـُ (Dhammah + Wau) = ū *or* ō

Diphthongs.

ايـِ (Fet-hah + Ye) = ai *or* ei

اوـُ (Fet-hah + Wau) = au, and also ū *and* ō (Turkish).

V

EXAMPLES OF CONVENTIONAL SPELLING
RETAINED

Aden	<i>'Adan</i>	Koran	<i>Qur'ān</i>
Akaba	<i>'Aqabah</i>	Koweit	<i>Kuweit</i>
Aleppo	<i>Halab</i>	Loheia	<i>Lahīyah</i>
Anazah	<i>'Anzah</i>	Maliki	<i>Mālikī</i>
Aneizah	<i>'Aneizah</i>	Mecca	<i>Makkah</i>
Asir	<i>'Asir</i>	Medina	<i>El-Medīnah</i>
Askari	<i>'Askari</i>	Meshed	<i>Mash-had</i>
Askaris	<i>'Askariyah</i>	Mocha	<i>Mokhā</i>
Basra	<i>El-Başrah</i>	Moslem	<i>Muslim</i>
Bedouin	<i>Bedāwi</i>	Mudir	<i>Mudir</i>
Beirut	<i>Beirūt</i>	Muscat	<i>Masqat</i>
Cairo	<i>El-Qāhirah</i>	Musemir	<i>Mus'aimir</i>
Caliph	<i>Khalīfah</i>	Oman	<i>'Omān</i>
Damascus	<i>Dimashq</i>	Ramadan	<i>Ramadhān</i>
Dervish	<i>Darwīsh</i>	Sanjak	<i>Sanjaq</i>
Emir	<i>Amir</i>	Senussi	<i>Senūsi</i>
Euphrates	<i>El-Furāt</i>	Shafei	<i>Shāfi'i</i>
Firman	<i>Firmān</i>	Sherif	<i>Sherif</i>
Hanifi	<i>Hanīfi</i>	Shiah	<i>Shī'ah</i>
Hejaz	<i>Hijāz</i>	Suakin	<i>Sawākin</i>
Ibadhi	<i>Ibādhi</i>	Suez	<i>Suweis</i>
Imam	<i>Imām</i>	Sultan	<i>Sultān</i>
Islam	<i>Islām</i>	Vizier	<i>Wazir</i>
Kaimmakam	<i>Qā'im Maqām</i>	Wahabi	<i>Wahhābi</i>
Khartoum	<i>Khartūm</i>		

GLOSSARY OF TOPOGRAPHICAL AND OTHER TERMS

Ab'ār, plur. of *bir* (q. v.).

Abba ('*abā*' or '*abā'ah*'), plur. *ā'bi'ah*. Arab cloak.

'Abd, plur. '*abīd*', '*ibād*', '*ubdān*', *a'bud*. Slave, negro, servant; man in general.

'Abid. Adorer, servant of God; pious.

'Abid. See **'Abd**.

Abraj. See **Burj**.

Abraq, plur. *abāriq*. Stony and sandy ground.

Abu. Father; often employed with a following genitive, in the sense of 'possessing, abounding in, characterized by'; abbreviated to *Bu* and *Ba* in the expressions *Āl Bu*, *Āl Ba* occurring in many tribal names.

Abul, i. e. *Abu'l*, contraction of *Abu el*, 'father of the'.

Abwāb. See **Bāb**.

Abyadh, fem. *beidha*. White.

'Adan, plur. '*adanāt*'. Light shifting sand.

Ahl. Family, people, inhabitants.

Ahmar, plur. *ahāmīr*, *humr*, *humrān*; fem. sing. *Hamra* (q. v.). Red.

Ahqāf. Very soft dune country with comparatively narrow trough-intervals between continuous sand-billows, which are of considerable height; see further, Vol. I, p. 12 f.

'Ain, plur. *a'yūn*, '*uyūn*', *a'yān*. Spring.

Akhdhar, fem. *khadhrā*'. Green.

Al. See **El**.

Āl. Tribe; for the expression *Āl Bu* in tribal names, see **Abu**.

A'la. Higher, upper.

'Alam, dual '*alamein*'. Sign; stone or column serving as boundary or road-mark.

'Āli, fem. '*āliyah*'. High.

Am. See **Umm**.

Ambar (*ambār*). Store-house, granary.

Amīr, plur. *umarā*'. Leader, prince; Emir.

Amwāh. See **Mā**'.

'Aqabah, before a vowel '*aqabat*'. Hill, mountain; lofty escarpment or acclivity; steep road.

- 'Aqalah**, before a vowel *'aqalat*. Fortress, asylum.
'Aqīd. Commander (when used in a military sense).
'Aqīl. Wise ; tribal title in Aden interior and Hadhramaut ; see further, p. 195.
'Aqīq, plur. *a'iqqah*. Ravine, gorge, bed of a torrent.
'Aql, plur. *'uqūl*. Fortress, asylum.
Aqra', fem. *qar'ā*, plur. *qur'ān*. Bare, devoid of vegetation.
Aqrab. Nearer.
'Aqrab. Scorpion.
'Araq. See **'Arq**.
Arba'ah, before a vowel *arba'at* ; fem. *arba'*. Four.
Arđh. Ground, land, earth.
'Areij. Sand-belt.
'Arish, plur. *'urush*. Hut, roof for shelter ; camel litter.
'Arq, **'Araq**. Trodden path.
'Arq, **'Irq**. Low hill, mountain-knoll, sand-dune ; mountain.
Asfal. Lower.
Asfar, fem. *safrā*. Yellow.
'Ashīrah, before a vowel *'ashīrat* ; plur. *'ashā'ir*. Kindred, family, tribe, race ; used of tribes paying taxation through their own chiefs.
Ashrāf, plur. of *Sherīf* (q. v.). Descendants of the Prophet through his daughter Fātimah ; the Sherifial clans. See also **Neqīb**.
Asīl. Noble, of race or origin.
'Askar, plur. *'asākīr*. Soldier ; army, troops.
'Askari, plur. *'askarīyah*. Soldier.
Asmar, fem. *samrā'*. Brown.
Aswad, fem. *sawdā'* ; plur. *sūd*. Black.
'Atīq, plur. *'utaqā'*. Ancient.
Awwal. First, foremost.
Azraq, fem. *zarqā'* ; plur. *zurq*. Blue, light blue, pale.
Ba. See **Abu**.
Bāb, plur. *abwāb*. Gate.
Bahr, plur. *abhur*, *buhūr*, *bihār*. Sea, lake.
Bahrah, before a vowel *bahrat* ; plur. *buhr*, *bihār*. Land, district ; lowlands ; place with water ; pool, basin.
Bajri. See **Dukhn**.
Bandar, **Bander** (Pers.). Port, harbour, emporium.
Barqah. Isolated patch of *nefūd* (q. v.).
Barr. Shore, bank ; continent.
Bat-ha (*Bat-hā'*), plur. *bitāh*. Broad pebbly bed ; open field ; low sandy flat.

Bātin. Depression ; lowland.

Batn. Belly ; depression ; river-bed.

Bedouin, Bedouins. (Arab. *Bedāwi*, plur. *Bedu*). Nomad, nomads ; see further, Vol. I, pp. 43 ff.

Beidha, plur. *buyūdh*, *beidhāt*. Egg ; small number of men ; place surrounded by tents.

Beidha. See **Abyadh**.

Beit, plur. *buyūt*, *abyāt*. Tent ; house ; building, habitation.

Beled, plur. *bilād*, *baldān*, *buldān*. Town ; district, country.

Beni, plur. (constr. state) of *Ibn* (q.v.). 'Sons of', of frequent occurrence in tribal names.

Bersim. Clover ; lucerne.

Bin, variant form of *Ibn* (q.v.) in construct state, 'son of'.

Bint, plur. *banāt*. Daughter.

Bir (*bī'r*), plur. *ab'ār*, *ab'ur*, *āb'ur*, *bī'ār*. Well.

Birkah, before a vowel *birkat*. Pool ; cistern, tank.

Boghāz (Turk.). Pass.

Bostān, Bustān, plur. *basātīn* (Persian). Garden.

Bu. See **Abu**.

Burj, plur. *burūj*, *abrāj*, *abrijah*. Tower, castle ; applied to spur, bluff.

Caracol (Turkish). Guard-house, police post.

Dahanah. Comparatively hard gravelly plain, covered at intervals with parallel sand-belts of varying width ; see further, Vol. I, p. 11 f.

Dār, plur. *dūr*, *diyār*, *adwūr*, &c. House, habitation ; court ; in Yemen, house with interior court and sometimes a square tower.

Darajah. Step ; flight of steps.

Darb, plur. *durūb*. Road.

Deir, plur. *duyūrah*, *adyirah*, and *adyār*. Monastery.

Derwish, Darwish, plur. *darāwish*. Dervish, mendicant.

Dhabi. Gazelle.

Dhāt, fem. of *Dhu* (q.v.) ; plur. *dhawāt*. Mistress of, possessor of, endowed with.

Dhawi. See **Dhu**.

Dheiqah, before a vowel *dheiqat*. Narrow place, pass.

Dhelūl, plur. *dhulul*. Riding camel ; see further, p. 13.

Dhu, Dhawi, (plur.), only used before a genitive. Master of, possessor of, endowed with. See also **Dhāt**.

Dhulul, plur. of *Dhelūl* (q.v.).

Dhura. Maize, Indian corn ; known also as *jowari* (*jowāri*).

Dikakah. See **Dukk**.

Dira (*dīrah*). The particular 'range' of a Bedouin tribe.

Diwān, plur. *dawāwīn*. Royal court, court of justice ; hall ; divan, sofa.

Dōhah (*dauhah*), before a vowel *dōhat*. Tall tree ; orchard ; very large house.

Dōm (*daum*). The wild palm, the only species of palm which forks or branches ; it produces a nut, which is exported.

Dukhn. Millet ; known also as *bajri*.

Dukk, plur. *dikakah* (before a vowel *dikakat*). Low hill, hillock ; a rolling down.

El, Al. The definite article, 'the'.

Ethl. See **Ithl**.

Fakhdh, plur. *afkhādh*. Subdivision of a tribe ; clan.

Fariq, plur. *firaq*, *afraq*, *afāriq*. Division of a tribe ; party, sect.

Felej, **Felj**, plur. *fulūj*. Subterranean conduit for irrigation ; pit or hollow in sand-bed.

Fellāh. Cultivator, peasant.

Felq, plur. *fulūq*. Cleft ; pit or hollow in sand-bed.

Fuleij. Diminutive of *Felej* (q. v.).

Fulūj. See **Felj**.

Fulūq. See **Felq**.

Gā'. See **Qā'.**

Ga'r. See **Qa'r.**

Ga'rah. See **Qa'rah**.

Ghadīr, plur. *ghudrān*, *ghadrān*. Tarn ; depression in which water stagnates ; temporary pool.

Ghaidhah, before a vowel *ghaidhat* ; plur. *ghiyādh*, *aghyādh*. Thicket with some water ; reedy bank ; wood, grove.

Ghail, plur. *ghuyūl*. Water-course ; valley in which are springs.

Ghār, plur. *aghwār*, *ghīrān*. Cave, lair ; army, troop of raiders.

Gharb. West.

Gharbi. Western ; west wind.

Ghaur. See **Ghōr**.

Ghazāl, plur. *ghizlān*. Young gazelle or deer.

Ghazw, **Ghazwah**. Raid ; cp. *ghazwā*, to make a raid.

Ghi (Hindustani). Clarified or liquid butter. See also **Semn**.

Ghīl, plur. *ghuyūl*, *aghyāl*. Morass ; reedy bank, thicket.

Ghōr, **Ghaur**. Low ground, bottom, enclosed valley, valley.

Ghubbah, before a vowel *ghubbat*. Sip, draught ; inlet.

Habl, Habil, plur. *hibāl, hebāl*. Sand-hill ; sand-ridge ; undulating upland (in Yemen) ; rope, cable.

Hadhbah, before a vowel *hadhbat* ; plur. *hidhab, hidhāb, hadhabāt, ahādhīb*. Massive isolated mountain ; flat-topped hill.

Hafir, plur. *hafā'ir*. Pit, cavity.

Hafirah. Pit.

Hail. See **Heil**.

Hāj. See **Hājah**.

Hājah, plur. *hāj, hājāt*. Anything necessary ; want, need ; desire.

Hajar, plur. *ahjār, ahjur, hijār, hijārah*. Stone.

Hajarah. See **Hajrah**.

Hajj. The annual pilgrimage from all parts of the Moslem world to Mecca.

Hājj, plur. *hujjāj, hajj, hujj*. Pilgrim, especially to Mecca.

Hajji. Title assumed by one who has performed the Hajj ; see further, Vol. I, p. 28 f.

Hajrah, Hajarah. Stony plain.

Hāl. Family, progeny.

Halwa. Sweet.

Halwa, plur. *halāwa*. Sweetmeats.

Hamād. Dry (soil), barren (region) ; name of the Syrian desert.

Hamām, Hamāmah, plur. *hamā'im, hamāmāt*. Turtle-dove, dove, pigeon.

Hammām, plur. *hammāmāt*. Bath.

Hamra, fem. sing. of *Ahmar* (q. v.). Red.

Harābah, before a vowel *harābat*. Water-cistern cut in rock.

Haram. A sacred thing or place ; the city and neighbourhood of Mecca or Medina.

Harrah, before a vowel *harrat* ; plur. *ahrār, hirār*. A surface of corrugated and fissured lavas or scoriae, overlying either plain or mountain ; see further, Vol. I, p. 12.

Haudh, plur. *hiyādh, ahwādh*. Reservoir, cistern : watering-place for cattle.

Haumah, Hōmah. Desert.

Hautah. Palace.

Hazeim. See **Huzeim**.

Hazm, Hazam, plur. *huzum*. Rough elevated ground.

Hebāl. See **Habl**.

Heid, Heidah. Projection, projecting rock, bluff.

Heil, Hail, plur. *huyūl, ahyāl*. Stagnating water in a ravine.

Heilah. Herd of small cattle.

Hijrah, Hujrah, before a vowel *hijrat, hujrat*. Stable, fold; room; sepulchre.

Hillah, before a vowel *hillat*. Alighting place; quarter, street; cinder-hill or crater in *Harrah* (q. v.).

Hisn, Husn, plur. *husūn*. Castle, stronghold.

Hiswah, before a vowel *hiswat*. Draught of water; soil where water is found.

Hufeirah. Diminutive of *Hafīrah* (q. v.); small cavity.

Hufrah, before a vowel *hufrat*; plur. *hafā'ir*. Ditch, hollow, hole, water-hole in soft ground.

Hujrah. See **Hijrah**.

Husn. See **Hisn**.

Huzeim (Hazeim). Diminutive of *Hazm* (q. v.).

Ibn, plur. *benūn* (and *abnā'*), constr. st. of plur. *beni*. Son.

Ihrām. The primitive dress assumed by pilgrims on entering the *haram*, or sacred vicinity of Mecca, and worn during the performance of the sacred rites; see further, Vol. I, p. 28.

Imām (conv. Imam). Religious leader.

'Irq. See **'Arq**.

Ism. Name.

Ithl, Ethl, plur. *uthūl*. Tamarisk, *Tamarix articulata*.

Jāddah. Causeway, high road.

Jadwal, Jidwal, plur. *jadāwil*. Brook, streamlet, canal.

Jāl. Wall, parapet; mountain slope, cliff; plateau, downs (in Hadhramaut).

Jalad, Jelad. Hard ground.

Jalīb. See **Qalīb**.

Jalta. Rain-pool in a rocky and otherwise dry watercourse.

Jamā'ah, before a vowel *jamā'at*. Community, assembly.

Jamal, plur. *jimāl, jamālah*. Camel.

Jāmi', plur. *jawāmi'*. Mosque.

Janeinah. See **Juneinah**.

Jannah, Jennah, before a vowel *jannat, jennat*; plur. *jinān, jannāt*. Orchard, garden.

Janūb. South; south wind.

Jarr. Foot of a mountain; valley; cave.

Jarrah. Water-course.

Jau, Jō. Hollow; wide valley; open pasture-ground.

Jauf, plur. *ajwāf*. Vast plain; depression, hollow.

Jaul, Jöl. Coast, side (of mountain), cliff ; herd, troop.

Jauz. See **Jöz.**

Jebel, plur. *jibāl, ajbāl*. Mountain.

Jedid (*jadīd*), fem. *jedīdah*. New, modern.

Jelad. See **Jalad.**

Jelf. See **Jilf.**

Jelīb. See **Qalīb.**

Jennah. See **Jannah.**

Jezīrah, before a vowel *jezīrat* ; plur. *jezā'ir, juzr*. Island ; used also for a peninsula.

Jilf, Jelf. Scratch, chip ; ridge.

Jinjili (Hindustani). Oil extracted from the sesame seed.

Jisr, plur. *ajsur, jusūr*. Bridge.

Jiz. Side of a valley ; coast ; region.

Jō. See **Jau.**

Jowari. See **Dhura.**

Jöz (*jauz*). Passage.

Jubb, plur. *ajbāb, jibāb, jibabah*. Deep well, cistern, hole, waterpan.

Jubbah, plur. *jubab, jebāb*. The long collarless robe with wide sleeves, which constitutes the usual outer dress of the Arabs.

Jufrah, before a vowel *jufrat* ; plur. *jufur, jifār*. Hole, hollow ; large district.

Juneinah, Janeinah. Diminutive of *Jannah* (q. v.).

Jurd, plur. *jurūd*. High, bare mountains.

Jurdah. High, stationary sand-dune.

Jurf, plur. *ajruf*. Mountain, cliff.

Jurn, pl. *ajrān*. Drying-place, drying-floor ; mortar.

Kadi. See **Qādhi.**

Kafr. Village.

Kaimmakam. Administrator of a *Kaza* (q. v.).

Kalb. See **Kelb.**

Kat. The fresh leaves and twigs of the plant *Catha edulis*, which are chewed as a stimulant ; see further, p. 376.

Kataf. See **Kitf.**

Kathīb. See **Kethīb.**

Kātib. Scribe, secretary.

Kaur. Tract, district ; land ; small town.

Kaza (*qaza* ; Turkish). Turkish administrative district under a *Kaimmakam* (q. v.), subdivision of a *Sanjak* (q. v.).

Kebīr, fem. *kebīrah* ; plur. *kibār, kubarā'*. Great.

Kelb (*kalb*), plur. *kilāb*. Dog.

Kella. Station, halting-place.

Kethīb, Kathīb. Light shifting sand.

Khabrah, before a vowel *khabrat*; plurs. *khibār, khabār, khabāri, khabrāwāt*. Rain-pool; depression in which water stands after rain; soft ground.

Khabt. Extensive tract of barren or low-lying ground.

Khadhra (*khadhrā'*). Green, fem. of *Akhdhar* (q. v.).

Khalifah, plur. *khalā'if*. Caliph.

Khāli. Empty, uncultivated, uninhabited.

Khall. Path through sandy ground.

Khamīs, plur. *akhmisa'*. Thursday; Thursday market.

Khān. Inn, caravanserai.

Khān (Persian). Lord, chief.

Khatmah, Khutmah, before a vowel *khatmat, khutmat*. Mountain peak.

Khaur. See **Khōr**.

Khirbah (pronounced *khurbah*), before a vowel *khirbat*. Ruin.

Khishm, Khashm. A mountain mass; prominent peak, spur, headland.

Khōr (*khaur*). Bay, inlet; also used by Bedouins to denote salt-incrusted ground.

Khubb, plurs. *akhbāb, khubūb*. Low ground, depression.

Khubūb. See **Khubb**.

Khudhrah, plur. *khudhar, khudhr*. Green colour; verdure; herbs, greens, vegetables.

Kibs. Earth with which a well is filled up; clay hut.

Kitf, Kataf. Shoulder; mountain slope.

Kūt, Kōt. Fort; building capable of defence.

Kuweit, diminutive of *Kūt* (q. v.). Small fort.

Leimūn. Lemon, citron, lime (fruit); Wādi Leimūn, prob. contracted from *Wādi el-Aiman*, 'the right-hand valley'.

Lughf. The lee side or fold of a sand-dune.

Mā, Ma, Mai (often pronounced *moi*), plurs. *miyāh, amwāh*. Water; plur. also employed in sense of 'sources, springs'.

M'a. See **Mi'a**.

Madāq. See **Medāq**.

Madraj, Madrajah, plur. *madārij*. Road, path; in plur., steps.

Mafrāq, Mafrīq, plur. *mafāriq*. Bifurcation; crossing of roads.

Mahall, plur. *mahāll*. Station; abode; quarter.

Mahallah, before a vowel *mahallat*. Quarter of a town; station; inn.

- Mahatt, Mahattah**, before a vowel *mahattat*. Place for alighting and unloading; station.
- Mahjar**. Stony ground.
- Mahjir, Mihjar**, plur. *mahājir, mehājer*. Surroundings of a town; orchard; quarry.
- Mai**. See **Mā**.
- Malik, Malk**, plur. *mulūk, amlāk*. King.
- Ma'mal**, plur. *ma'āmil*. Workshop, manufactory.
- Maqta', Muqta'**. Cutting, quarry; ford.
- Markaz**. See **Merkez**.
- Marsa**. See **Mersa**.
- Masadd**. Hole, gap; barricade, barrage, dam.
- Mashāsh, Mushāsh**. Soft ground; wells.
- Masjad, Masjid**. See **Mesjid**.
- Mazār**. Shrine.
- Mazra'ah**. See **Mizra'**.
- Medā'in**. See **Medinah**.
- Medāq, Madāq**. Place of combat.
- Medheiq, Madhaiq**. Narrows, narrow place; gorge, defile.
- Medinah**, before a vowel *medīnat*; plur. *mudun, mudn, medā'in*. City.
- Mehājer**. See **Mahjir**.
- Mehlāl**. See **Mihlāl**.
- Meidān, Midān**. Open space; vast plain.
- Mejlis**. Council; board, session.
- Mejlis Beledi**. Town council.
- Melh**. See **Milh**.
- Merkez, Markaz**. Place where the flag is planted on the ground; head-quarters; chief town of province.
- Mersa, Marsa**, plur. *marāsi*. Anchorage, harbour.
- Mesjid, Masjid, Masjad**, plur. *masājīd*. Place of prayer, small mosque; El-Mesjidān (dual), the mosques of Mecca and Medina.
- Mi'a, M'a**. Irrigation channel.
- Mihlāl, Mehlāl**. Place of assembly.
- Mijbāh**. Cooking-hole in ground.
- Milh, Melh**, plur. *milah (melah), milāh (melhāh), milhah (melhah), amlāh*. Salt, salt water; salt (adj.).
- Mimbar, Minbar**. Pulpit; chair (of a teacher).
- Miyāh, Amwāh**, plur. of *Mā* (q. v.). Waters, sources.
- Mizra', Mazra'ah** (before a vowel *mazra'at*). Sown field, arable ground; village, hamlet.
- Moyah, Muweihah**, before a vowel *moyat, muweihat*. A little water.
- Mudarraaj**. Constructed in steps.

Mudir (*mudir*). Administrator of a *Nāhiyah* (q. v.).

Multāk. See **Malik**.

Munākḥ. Place where a camel kneels down ; station, resting-place.

Muqaddam. Leader ; tribal lord.

Muqtaʿ. See **Maqtaʿ**.

Mutesarrif. Turkish administrator of a *Sanjak* (q. v.).

Muweih. A little water.

Muweihah. See **Moyah**.

Nadh, Nadhah (before a vowel *nadhat*), plur. *andāḥ*. Vast open tract.

Nadhah. Plenty ; great quantity.

Nāhiyah, before a vowel *nāhiyat*. Turkish administrative district under a *Mudir* (q. v.), subdivision of a *Kaza* (q. v.).

Nahr, plur. *anhur, anhār, nuhur, nuhūr*. River, stream, canal.

Nakheil (*nukheil*). Small palm.

Nakhil. Palm-trees, palm-grove.

Nakhl, plur. *nakhil*. Palm-tree.

Naʿl, fem. *naʿlah*. Hard shiny pebbly ground.

Naqa. Sand-heap.

Naqaʿ, plur. *niqāʿ, anquʿ*. Flat country where water stagnates.

Naqb. Hole, breach ; tunnel ; pass, defile.

Naqib. See **Neqib**.

Naqil, Neqil. Stream of water ; road.

Naubah. See **Nūbah**.

Nebi. Prophet.

Nefūd (*nefūdḥ*). A continuous area of deep sand, forced by wind-pressure into high sand-billows or dunes ; see further, Vol. I, p. 11 f.

Nejd. Plateau, elevated ground ; elevated road.

Neqib, Naqib, plur. *nuqabaʿ*. Governor, leader, head of a community, chief, prefect, magistrate. *Naqib el-Ashraf*, the official representative of the Sherifial clans.

Neqil. See **Naqil**.

Nizām. Turkish regular troops.

Nūbah, Naubah, before a vowel *nūbat, naubat*. Post, guard.

Nullah (Hindustani). Water-course.

Nuqairah, before a vowel *nuqairat*. Diminutive of *Nuqrah* (q. v.).

Nuqrah, before a vowel *nuqrat*. Cavity, pit ; deep valley ; depression in *Nefūd* (q. v.) ; sunken bay in *Harrah* (q. v.).

Nuqtah, before a vowel *nuqtat* ; plur. *nuqat, niqāt*. Spot, point.

ʿ**Omrah**. Visit to a place ; minor pilgrimage.

- Qā'** (sometimes pronounced *gā'*). Plain, flat tract of land.
- Qabīlah**, before a vowel *qabīlat*; plur. *qabā'il*. Nomadic tribe.
- Qabr**, plur. *qubūr*. Tomb.
- Qādhi** (Kadi), plur. *qudhāt*. Judge.
- Qāfilah**, before a vowel *qāfilat*; plur. *qawāfil*. Caravan.
- Qafr**. Desert without water and vegetation.
- Qahwah**, before a vowel *qahwat*. Coffee-shop.
- Qā'id**, plur. *quwwād*, *quwwad*. Guide, leader, commander; police officer.
- Qal'ah**, before a vowel *qal'at*. Fort, citadel.
- Qalb**, plur. *qulūb*. Heart, centre.
- Qalīb** (sometimes pronounced *jalīb* or *jelīb*), plur. *qulbān* (*gulbān*). Old, or unlined, well.
- Qantarah**, before a vowel *qantarat*; plur. *qanātīr*, *qanātīr*. Bridge; vault, arch; aqueduct.
- Qa'r** (sometimes pronounced *ga'r*), plur. *qu'ūr*. Pit or hollow in sand-bed.
- Qar'**. Bottom; ground; depth.
- Qar'a** (*qar'ā*), fem. of *Agra'* (q. v.).
- Qara'ah**, before a vowel *qara'at*. Bareness, baldness.
- Qa'rah** (sometimes pronounced *ga'rah*), plur. *qa'rāt* (*ga'rāt*). Depression; low ground; oasis soil. Term applied by the Shammar to pit or hollow in sand-bed.
- Qārah**, plur. *qārāt*. Isolated hill.
- Qarawi**. Inhabitant of a village or town.
- Qarīb**. Near, close at hand.
- Qarn**, plur. *qurūn*. Horn; projecting hill or mountain.
- Qaryah**, **Qiryah**, **Quryah**, before a vowel *qaryat*, *qiryat*, *quryat*. Village, hamlet; town.
- Qasr**, plur. *qusūr*. Palace, castle, fortress.
- Qauz**, **Qōz**. High round sand-hill; ridge, crest.
- Qiryah**. See **Qaryah**.
- Qōz**. See **Qauz**.
- Qubbah**, before a vowel *qubbat*; plur. *qubab*, *qibāb*. Dome, cupola; small domed shrine.
- Qulbān**. (1) Plur. of *Qalīb* (q. v.); (2) enclosure of palms.
- Quryah**. See **Qaryah**.
- Quseir**, **Qseir**. Diminutive of *Qasr* (q. v.).
- Rab'**, plur. *ribā'*, *rubū'*, *arbu'*, *arbā'*. Spring camp; home, dwelling, house.
- Raflīq**, lit. 'friend, comrade'. A companion derived from the Bedouin tribe through whose range one must pass, or from

some tribe allied with it or authorized to share its range ; see further, Vol. I, p. 21.

Raha. Mill, mill-stone.

Rāhah, before a vowel *rāhat*. Rest, repose.

Rahwah, before a vowel *rahwat*. High or embanked ground.

Ra'is, **Rayyis**. Chief, leader ; captain.

Rajul, plurs. *rijāl*, &c. Man.

Raml. Sand.

Ramlah, before a vowel *ramlat*. Sand-heap, sand-hill.

Ras (*ra's*), plurs. *ru'ūs*, *ru'us*, *ārūs*. Head, promontory.

Raudh, **Rōdh**. Some water.

Raudhah, before a vowel *raudhat* ; plurs. *raudh*, *raudhāt*, *riyādh*, *rīdhān*. Place with water and abundant grass ; meadow ; green hollow ; garden with rich vegetation.

Rayyis. See **Ra'is**.

Rī', plur. *riyā'*. Pass ; mountain-path ; steep declivity ; hill.

Rijāl. See **Rajul**.

Rijm, **Rujm**, plur. *rujūm*. Cairn, heap of stones.

Riyādh. See **Raudhah**.

Riyāl. The Maria Theresa dollar, the most common medium of exchange in Arabia ; the coins are still minted, but all bear the date 1788.

Rōdh. See **Raudh**.

Ruba'. Abode.

Rubu'. See **Rab'**.

Rujm ; **Rujūm**. See **Rijm**.

Sabkhah, **Sabakhah**, before a vowel *sabkhat*, *sabakhat* ; plur. *sibākh*. Nitrous or saline depression ; salt ground, salt marsh ; deposit of tufaceous gypsum.

Sabt, plur. *asbut*, *subūt*. Saturday ; Saturday market ; week ; time.

Sādah. See **Seyyid**.

Sadd. Barrage, dam, barricade.

Sāfil. Low, lower ; lower part.

Sāfilah. Base, back.

Safra, fem. of *Asfar* (q. v.).

Saghīr, fem. *saghīrah*. Small.

Sahil. Easy, smooth ; covered with sand.

Sahl, plur. *suhūl*. Plain, level ground.

Sahl. Easy, level.

Sakan. Habitation, dwelling, abode.

Sākin, plur. *sukkān*. Inhabitant.

Samra (*samrā'*). See **Asmar**.

- Sanjak** (*sanjaq*). Turkish administrative district under a *mutesarrif*, usually a subdivision of a *Vilayet* (q.v.).
- Sawān, Swān, Sawwān**. Granite.
- Sebil**. Small open building beside a fountain, in which travellers pray and take their repose.
- Seih**, plur. *suyūh*, *asyāh*. Running water.
- Seil**. Torrent after heavy rain.
- Seilah**, before a vowel *seilat*. Stream ; heavy shower.
- Semn**. Liquid butter. See also **Ghi**.
- Serai, Serāyah**, plur. *serāyāt*. Palace ; government buildings ; in Persia and India *serai* = caravanserai.
- Serdāb**. Cellar ; underground room, for protection against the heat of summer.
- Serdeb**. Way, road.
- Seyyid**, plur. *sādah*, *sādāt*, *sayā'id*, *asyād*. Master, lord, prince ; title of one claiming descent from Mohammed through Fātimah ; see further, Vol. I, p. 221 f.
- Sha'afah**, before a vowel *sha'afat*. Mountain-summit.
- Sha'b**, plur. *shu'ūb*. Split, cleft ; troop, tribe.
- Sha'Tb**, plur. *shu'ab*, *shī'āb*. Ravine, mountain-cleft ; water-course, channel.
- Shamāl**. North, north wind ; left hand, left side.
- Shaqb, Shiqb**, plur. *shiqāb*. Mountain-cleft, narrow mountain-pass ; low ground with stagnating water.
- Shaqīq**. Split, torn ; basin of clay sand and stone in sand-bed.
- Shaqīqah**. Fertile valley between two mountains ; mountain-pass.
- Shaqq**, plur. *shuqūq*. Split, fissure ; side.
- Sharm**. See **Sherm**.
- Sharq**. East.
- Sharqi**. Eastern.
- Shatt**, plur. *shutūt*, *shuttān*. River-bank, river ; shore.
- Sheikh**, plur. *shuyūkh*. Chief of tribe, of sub-tribe, or of village ; also religious leader.
- Sherif**, plur. *ashrāf* (q.v.). Noble, of noble lineage, particularly of descent from Mohammed ; as title, see Vol. I, pp. 34, 108.
- Sherm, Sharm**, plur. *shurūm*. Gulf, inlet, bay.
- Shi'b**, plur. *shī'āb*. A mountain path, path ; cleft, narrow pass, valley ; water-course.
- Sif**, plur. *seyāfi*, *asyāf*. Sea-coast, beach ; river-bank.
- Siflah, Sufālah**. Lower part.
- Sikkah**, before a vowel *sikkat* ; plur. *sikak*. Road.
- Silsilah**, before a vowel *silsilat* ; plur. *salāsil*. Chain, chain of mountains ; unbroken succession.

Simsim. Sesame.

Sūq, plur. *aswāq*. Bazaar, market, market-place.

Taff, Taffah (before a vowel *taffat*). Tract of land; shore; low and sandy maritime plain.

Tamimah. Tribal chief.

Tarfah. Tamarisk.

Tariq, plur. *turuq*. Road, path.

Tariqah, before a vowel *tariqat*. Order, religious fraternity.

Tā'us. Sand-dune; see further, Vol. I, p. 393.

Tawil, plur. *tiwāl, tiyāl*. Long, tall, great.

Tayyib, fem. *tayyibah* (before a vowel *tayyibat*). Good, excellent, pleasant.

Tehāmah, before a vowel *tehāmat*. Hot lowland.

Tell, plur. *tulūl, tilāl*. Mound, small hill.

Thāni. Second; double.

Themilah, before a vowel *themilat*; plur. *themā'il*. Pool; reservoir of stone; water-hole in bed of a wādi.

Thenyah, before a vowel *thenyat*. Winding path.

Tin. Clay, loam.

Tōr, Taur, plur. *atwār*. Boundary.

Tuleil. Diminutive of *Tell* (q.v.).

Tuwāl. Long, tall.

Umm, plur. *ummāt, ummahāt*. Mother; often employed before a genitive in the sense of 'possessing, abounding in, characterized by'; in Aden frequently *am*.

'Ushr, plur. *'ushūr*. Tithes, on agricultural produce and stock; sea-customs.

Vali (*vāli*; Turkish). Administrator of a Turkish province or *Vilayet* (q.v.).

Vilayet. Turkish province, under a *Vāli* (q.v.).

Wa. And.

Wādi, plur. *audiyah, audāyah, audā', audāh, widyān*; dual *wadyān*. Water-course, bed of stream, valley with stream-bed.

Wakil, plur. *wukalā*. Agent, deputy; manager, steward; lieutenant; governor.

Walad, Weled, Wald, Wild, Wuld, plur. *aulād*. Boy; son, descendant.

Wali, Weli. Prophet, saint.

Waqf, plur. *auqāf, wuqūf*. Land held (actually or nominally) in trust for religious purposes.

Wázir, plur. *wuzara'*, *auzār*. Vizier, minister ; assistant, helper.
Weli. See **Wali**.

Yaman, Yamin. Right hand, right side.

Yôm, Yaum, plur. *ayyām*. Day.

Zakât, plur. of *zakah*. Taxes ; export-duty ; see further, p. 246.

Zaptieh (Turkish). Member of armed police force.

Zarībah, Zerībah, before a vowel *zarībat* ; plur. *zarā'ib*. Fold for cattle ; ambush, hiding-place ; entrance.

Zarqa (*zarqā'*). See **Azraq**.

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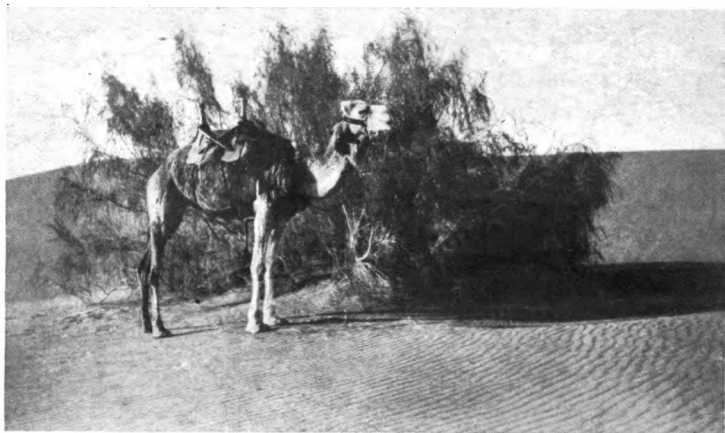
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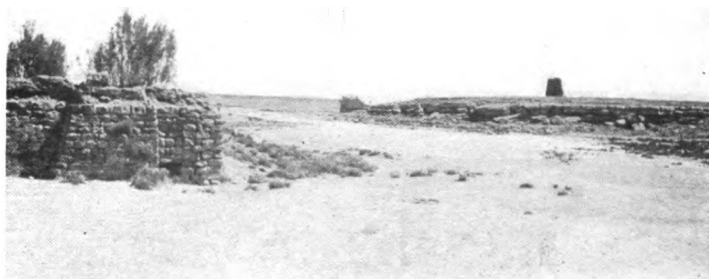
PLATES

- I. (a) Bedouin camel
(b) Wādi Bātin es-Sedeir
- II. Bir Hazil
- III. (a) Quseibah
(b) The oasis of Dar'iyah
- IV. The wādi of Abu Tāqah
- V. (a) Ma'ān Bridge
(b) Tebūk Station on the Hejaz Railway
- VI. Desert near Dār el-Hajj
- VII. Mabrak en-Naqa'
- VIII. (a) Menākhah in Yemen
(b) The castellated village of Hajrah
- IX. (a) The castle of Rostāq
(b) Jebel Misht

[NOTE.—The illustrations include photographs taken by the following travellers: Mr. D. Carruthers (Pl. I *a*), Capt. W. H. I. Shakespear (Pl. I *b*), Capt. G. Leachman (Pls. II, III *a* and *b*), Lt.-Col. S. B. Miles (Pl. IX *a* and *b*), and Mr. G. W. Bury (Pl. VIII *a* and *b*).]



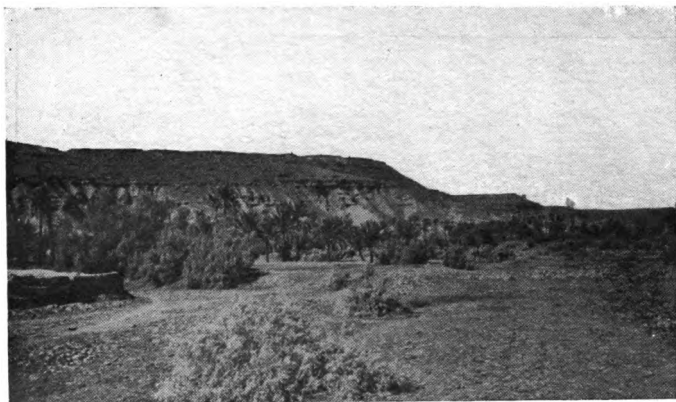
(a) 'The Bedouin camel picks up its food where it can, living on the roughest grazing, browsing on thorny acacia and tamarisk' (vol. ii, p. 14). The *ghadha*-bush in the photo is a species of tamarisk.



(b) Wādi Bātin es-Sedeir at Hasūn ; see Route No. 16, vol. ii, p. 119. Note the embankments against flood.



'Bir Hazel, a group of 100 stone-lined wells scattered over a depression about 10 m. in circumference' ;
see Route No. 5, vol. ii, p. 83.



(a) Quseibah, 'a village or small town stretching for a mile along the foot of a precipitous sandstone cliff'; see Route No. 6, vol. ii, p. 86.



(b) The oasis of Dar'iyah and 'the ruins of the old capital destroyed in 1818' (vol. i, p. 358); see Route No. 15, vol. ii, p. 117.



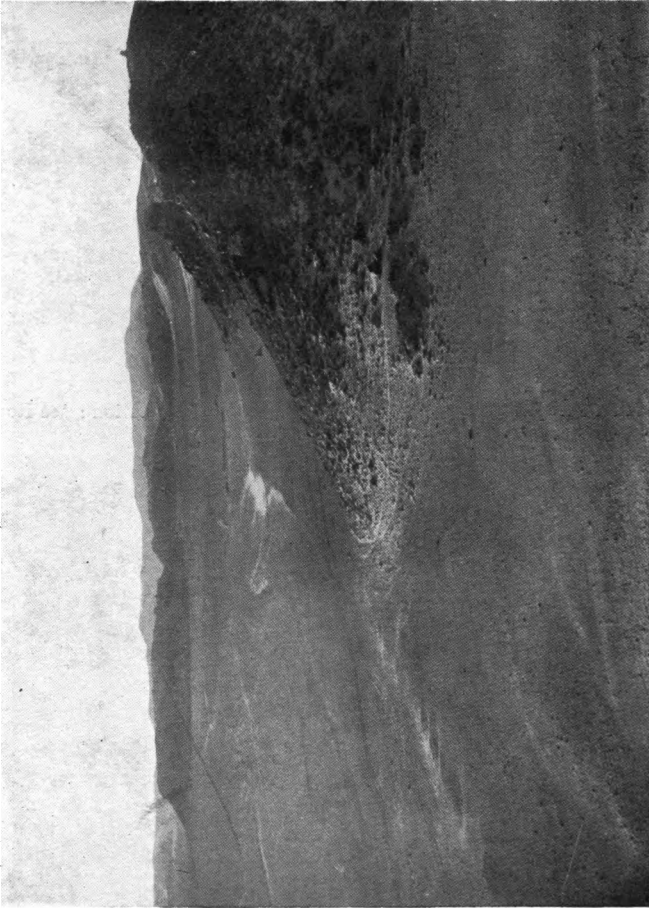
The Hejaz Railway in the narrow wādi of Abu Tāqah, north of Medā'in Sālih. 'In spite of the embankment, trains are here often stopped or derailed by the sand' (vol. ii, p. 133).



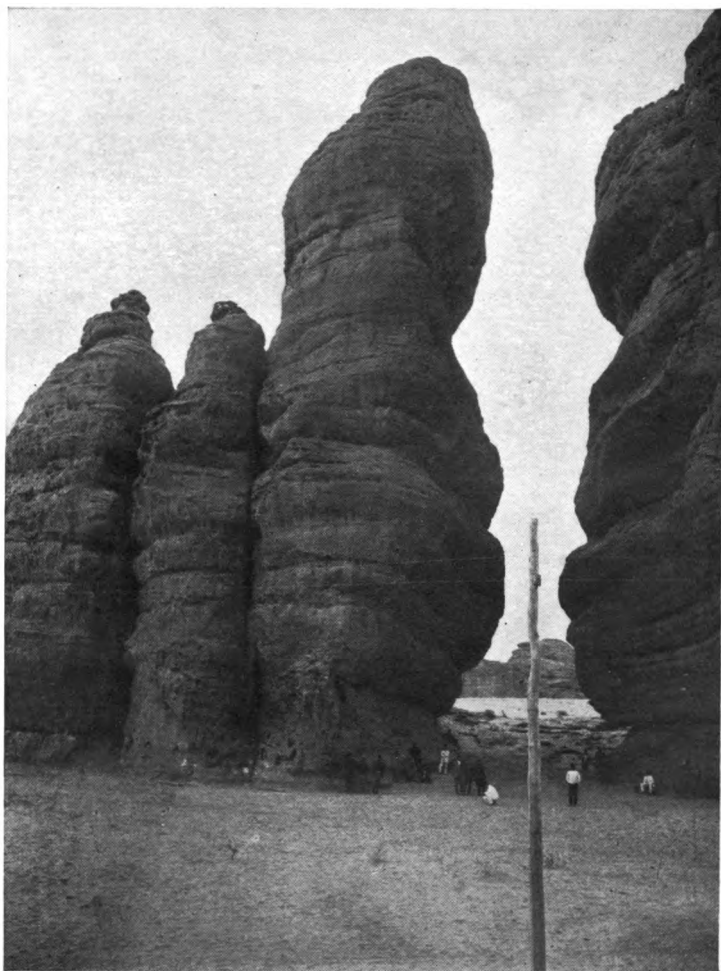
(a) Ma'an Bridge on the Hejaz Railway, north of Ma'an Station ; see Route No. 17, vol. ii, p. 121.



(b) Tebūk Station on the Hejaz Railway ; 'water-tower with two tanks, steam pump, and windmill pump' (vol. ii, p. 128).



Desert near Dār el-Hajj on the Hejaz Railway. 'A very broken plateau with bare hill-tops and deep sandy valleys' (vol. ii, p. 130). Notice the sand-waves.



Mabrak en-Naqa' on the Hejaz Railway, north of Medā'in Sālih. 'Fantastic sandstone rocks worn by wind-blown sand' (vol. ii, p. 134).



(a) Menākhah in Yemen. 'The town is perched on a narrow strip of mountain which joins two distinct ranges and forms the watershed of two great valleys' (vol. i, p. 167); see Route No. 55, vol. ii, p. 247.



(b) The 'castellated village of Hajrah, perched on high rock'; see Route No. 55, vol. ii, p. 247.



(a) The castle of Rostāq. 'It consists of a citadel with four turrets, standing in a courtyard, the walls of which are strengthened with bastions at the angles' (vol. i, p. 265); see Route No. 72, vol. ii, p. 328.



(b) 'Jebel Misht, a perpendicular cliff with a ridge notched like a comb'; see Route No. 71, vol. ii, p. 324.

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V. 2

